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BEFORE THE ARIZONA CORPORATION

COMMISSIONERS

GARY PIERCE, Chairman
BOB STUMP
SANDRA D. KENNEDY
PAUL NEWMAN
BRENDA BURNS

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AZ CORP COMMISSION
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2012 JUL 27 PM 1 18

IN THE MATTER OF THE APPLICATION OF
MORENCI WATER AND ELECTRIC COMPANY
FOR APPROVAL OF A RATE INCREASE.

DOCKET NO. E-01049A-11-0300

IN THE MATTER OF THE APPLICATION OF
MORENCI WATER AND ELECTRIC COMPANY
FOR THE ESTABLISHMENT OF JUST AND
REASONABLE RATES FOR ITS WATER
DEPARTMENT.

DOCKET NO. W-01049A-11-0311

**STAFF'S NOTICE OF FILING DIRECT
TESTIMONY**

The Utilities Division ("Staff") of the Arizona Corporation Commission ("Commission") hereby files the Direct Testimony (Except Rate Design and Cost of Service) of Staff witnesses Crystal Brown, Margaret (Toby) Little, Jian Liu and Julie McNeely-Kirwan in the above-referenced matter.

RESPECTFULLY SUBMITTED this 27th day of July, 2012.

Arizona Corporation Commission

DOCKETED

JUL 27 2012




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Original and thirteen (13) copies
of the foregoing were filed this
27th day of July, 2012 with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

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BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE

Chairman

BOB STUMP

Commissioner

SANDRA D. KENNEDY

Commissioner

PAUL NEWMAN

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REASONABLE RATES FOR ITS WATER)
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DOCKET NO. W-01049A-11-0311

DIRECT

TESTIMONY

OF

CRYSTAL S. BROWN

PUBLIC UTILITIES ANALYST V

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

JULY 27, 2012

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
BACKGROUND	3
CONSUMER SERVICE.....	4
COMPLIANCE.....	4
SUMMARY OF PROPOSED REVENUES	4
RATE BASE.....	7
Fair Value Rate Base	7
Rate Base Summary.....	7
OPERATING INCOME	7
Operating Income Summary	7
Operating Income Adjustment – BCOP Revenue and PPAC Revenue (Morenci Electric).....	8
Operating Income Adjustment – Water Testing Expense (Morenci Water and Clifton Water)	9
Operating Income Adjustment – Property Taxes (Morenci Water and Clifton Water)	10
Operating Income Adjustment – Income Taxes (Morenci Water and Clifton Water).....	11
REVENUE REQUIREMENT	11

SCHEDULES

MWE Electric Department

Revenue Requirement	CSB-1
Gross Revenue Conversion Factor	CSB-2
Rate Base – Original Cost	CSB-3
Operating Income Statement – Test Year and Staff Recommended	CSB-4
Summary of Operating Income Adjustments – Test Year.....	CSB-5
Operating Income Adjustment No. 1 – Base Cost of Power Revenue	CSB-6
Operating Income Adjustment No. 2 – Purchased Power	CSB-7
Operating Income Adjustment No. 3 – Income Taxes	CSB-8

MWE Water Department – Morenci System

Revenue Requirement	CSB-1
Gross Revenue Conversion Factor	CSB-2
Rate Base – Original Cost	CSB-3
Operating Income Statement – Test Year and Staff Recommended	CSB-4
Summary of Operating Income Adjustments – Test Year.....	CSB-5
Operating Income Adjustment No. 1 – Water Testing	CSB-6
Operating Income Adjustment No. 2 – Property Taxes.....	CSB-7
Operating Income Adjustment No. 3 – Income Taxes	CSB-8

MWE Department- Clifton System

Revenue Requirement	CSB-1
Gross Revenue Conversion Factor	CSB-2
Rate Base – Original Cost	CSB-3
Operating Income Statement – Test Year and Staff Recommended	CSB-4
Summary of Operating Income Adjustments – Test Year	CSB-5
Operating Income Adjustment No. 1 – Water Testing	CSB-6
Operating Income Adjustment No. 2 – Property Taxes.....	CSB-7
Operating Income Adjustment No. 3 – Income Taxes	CSB-8

EXECUTIVE SUMMARY
MORENCI WATER AND ELECTRIC COMPANY
DOCKET NOS. E-01049A-11-0300 & W-01049A-11-0311

Morenci Water and Electric Company ("MWE" or "Company") is a certificated Arizona public service corporation that provides water and electric service mostly in Greenlee County, Arizona. The Company provided water service to approximately 1,915 customers and electric service to approximately 2,336 customers during the test year. The current rates of the Company's water and electric departments were approved in Decision No. 54712, dated October 10, 1985.

On July 29, 2011, MWE filed applications for a permanent rate increase for its water and electric departments.

Morenci Water & Electric – Electric Department ("Morenci Electric")

Morenci Electric proposed a \$12,738, or .02 percent revenue increase from \$73,632,080 to \$73,644,818. The proposed revenue increase would produce an operating income of \$1,150,249 for a 5.75 percent rate of return on an original cost rate base ("OCRB") of \$19,992,153. Staff's recommendations are the same as the Company's. Staff recommends a \$12,738, or .02 percent revenue increase from \$73,632,080 to \$73,644,818. Staff's recommended revenue increase would produce an operating income of \$1,150,249 for a 5.75 percent rate of return on an original cost rate base OCRB of \$19,992,153.

Morenci Water & Electric – Water Department, Morenci System ("Morenci Water")

Morenci Water proposed a \$193,369, or 31.83 percent revenue increase from \$607,570 to \$800,939. The proposed revenue increase would produce an operating loss of \$359,141 for no rate of return on an OCRB of \$3,294,872. Staff recommends a \$193,369 or 31.83 percent revenue increase from \$607,570 to \$800,939 which is the same as the Company's. Staff's recommended revenue increase would produce an operating loss of \$400,227 for no rate of return on an OCRB of \$3,294,872.

Morenci Water & Electric – Water Department, Clifton System ("Clifton Water")

Clifton Water proposed a \$65,049, or 33.19 percent, revenue increase from \$196,004 to \$261,053. The proposed revenue increase would produce an operating loss of \$47,711 for no rate of return on an OCRB of \$585,414. Staff recommends a \$65,049, or 33.19 percent, revenue increase from \$196,004 to \$261,053. Staff's recommended revenue increase would produce an operating loss of \$56,862 for no rate of return on an OCRB of \$585,414.

Staff's typical bill analysis information will be filed with Staff's Rate Design Testimony.

INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is Crystal S. Brown. I am a Public Utilities Analyst V employed by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Briefly describe your responsibilities as a Public Utilities Analyst V.

A. I am responsible for the examination and verification of financial and statistical information included in utility rate applications. In addition, I develop revenue requirements, prepare written reports, testimonies, and schedules that include Staff recommendations to the Commission. I am also responsible for testifying at formal hearings on these matters.

Q. Please describe your educational background and professional experience.

A. I received a Bachelor of Science Degree in Business Administration from the University of Arizona and a Bachelor of Science Degree in Accounting from Arizona State University.

Since joining the Commission in August 1996, I have participated in numerous rate cases and other regulatory proceedings involving electric, gas, water, and wastewater utilities. I have testified on matters involving regulatory accounting and auditing. Additionally, I have attended utility-related seminars sponsored by the National Association of Regulatory Utility Commissioners ("NARUC") on ratemaking and accounting designed to provide continuing and updated education in these areas.

1 **Q. What is the scope of your testimony in this case?**

2 A. I am presenting Staff's analysis and recommendations in the areas of rate base, operating
3 revenues and expenses and revenue requirement regarding Morenci Water and Electric
4 Company's ("MWE" or "Company") applications for permanent rate increases.

5
6 **Q. Who else is providing Staff testimony and what issues will they address?**

7 A. Staff witness Julie McNeely-Kirwan is presenting Staff's base cost of power
8 recommendation. Staff witness Jian Liu is presenting Staff's engineering analysis and
9 recommendations concerning the water department. Staff witness Margaret (Toby) Little
10 is presenting Staff's engineering analysis and recommendations concerning the electric
11 department. Also, Staff witness Julie McNeely-Kirwan will be presenting Staff's electric
12 rate design recommendations and Staff witness Bentley Erdwurm will be presenting
13 Staff's water rate design recommendations (which are due August 10, 2012).

14
15 **Q. What is the basis of your recommendations?**

16 A. I performed regulatory audits of MWE's applications to determine whether sufficient,
17 relevant, and reliable evidence exists to support the Company's requested rate increases.
18 The regulatory audit consisted of examining and testing the financial information,
19 accounting records, and other supporting documentation and verifying that the accounting
20 principles applied were in accordance with the Commission-adopted NARUC Uniform
21 System of Accounts ("USOA") and Federal Energy Regulatory Commission ("FERC")
22 USOA.

23

BACKGROUND

Q. Please review the background of these applications.

A. MWE is a certificated Arizona public service corporation that provides water and electric service mostly in Greenlee County, Arizona. The Company provided water service to approximately 1,915 customers and electric service to approximately 2,336 customers during the test year. MWE also provides electric service to mining operations in Morenci and Safford. Over 98 percent of MWE's sales revenue comes from the mining operations. The mining operations in addition to MWE are owned by Freeport McMoRan Cooper and Gold, Inc.

The current rates of MWE's water and electric departments were approved in Decision No. 54712, dated October 10, 1985. For the electric department, that Decision authorized a \$463,321 revenue increase that provided a 5.8 percent rate of return on an \$876,811 fair value rate base. For the water department, that Decision authorized an approximate \$60,537 revenue increase that provided a 3.0 percent rate of return on a \$3,176,686 fair value rate base.

Q. What are the primary reasons for MWE's requested permanent rate increase?

A. According to MWE, the primary reasons are to recover increased operating expenses and to comply with a Commission order that required the Company to file a rate case for its electric department.

CONSUMER SERVICE

Q. Please provide a brief history of customer complaints received by the Commission regarding MWE.

A. Staff reviewed the Commission's records for the period of January 1, 2009, through July 6, 2012, and found no complaints.

COMPLIANCE

Q. Please provide a summary of the compliance status of MWE.

A. A check of the Compliance Database indicates that there are currently no delinquencies for MWE.

SUMMARY OF PROPOSED REVENUES

Q. Please summarize the MWE filing.

A. MWE proposes, in aggregate, \$74,706,81 of total annual operating revenue. This represents an increase of \$271,156, or 0.36 percent, over test year revenue of \$74,435,654. The amounts for each department and system are shown below.

Company Proposed

	<u>MWE Present Revenue</u>	<u>MWE Proposed Revenue</u>	<u>\$ Increase</u>	<u>% Increase</u>
Morenci Electric	\$73,632,080	\$73,644,818	\$12,738	0.02%
Morenci Water	\$607,570	\$800,939	\$193,369	31.83%
Clifton Water	\$196,004	\$261,053	\$65,049	33.19%
Total / Overall	\$74,435,654	\$74,706,810	\$271,156	0.36%

Q. Please summarize Staff's recommended revenue.

A. Staff agrees with MWE's proposal as shown above.

1 The above proposed and recommended revenue increases would apply to the customers of
2 each of the MWE Department/System as discussed below:

3
4 *Morenci Electric*

5
6 Morenci Electric proposed a \$12,738, or .02 percent revenue increase from \$73,632,080 to
7 \$73,644,818. The proposed revenue increase would produce an operating income of
8 \$1,150,249 for a 5.75 percent rate of return on an original cost rate base ("OCRB") of
9 \$19,992,153. Staff's recommendations are the same as the Company's.

10
11 *Morenci Water*

12
13 Morenci Water proposed a \$193,369, or 31.83 percent revenue increase from \$607,570 to
14 \$800,939. The proposed revenue increase would produce an operating loss of \$359,141
15 for no rate of return on an OCRB of \$3,294,872. Staff's recommendations are the same as
16 the Company's.

17
18 *Clifton Water*

19
20 Clifton Water proposed a \$65,049, or 33.19 percent, revenue increase from \$196,004 to
21 \$261,053. The proposed revenue increase would produce an operating loss of \$47,711 for
22 no rate of return on an OCRB of \$585,414. Staff's recommendations are the same as the
23 Company's.

24
25 **Q. What test year did MWE use in this filing?**

26 **A.** MWE's rate filing is based on the twelve months ended December 31, 2010 ("test year").

1 **Q. Please summarize the rate base and operating income recommendations and**
2 **adjustments addressed in your testimony for MWE.**

3 A. No adjustments were made to the Company's rate base. My testimony addresses the
4 following operating income issues:

5
6 Base Cost of Power ("BCOP") Revenue and Purchased Power Cost Adjustor ("PPCA")

7 Revenue – This adjustment reclassifies revenues in order to match the BCOP Revenue to
8 the Company-proposed purchased power expense and eliminates the PPCA revenues from
9 operating revenues.

10
11 Water Testing – This adjustment increases operating expenses by \$6,203 for Morenci
12 Water and \$4,136 for Clifton Water to reflect Staff's recommended annual water testing
13 costs.

14
15 Property Tax Expense – Staff increased property tax expense by \$582 for Morenci Water
16 and decreased property tax expense by \$390 for Clifton Water to reflect Staff's calculation
17 of the property tax expense.

18
19 Income Tax Expense – Staff decreased income tax expense by \$32,467 for Morenci Water
20 and \$4,788 for Clifton Water to reflect the income tax obligation on Staff's adjusted test
21 year taxable income.
22

RATE BASE

Fair Value Rate Base

Q. Did MWE prepare schedules showing the elements of Reconstruction Cost New Rate Base?

A. No, MWE did not. MWE proposed that its original cost rate bases ("OCRB") be treated as its fair value rate bases.

Rate Base Summary

Q. Please summarize Staff's adjustments to MWE's rate bases shown on Schedules CSB-3 and CSB-4 of their respective schedules.

A. A summary of the MWE's proposed and Staff's recommended rate bases follows:

	TEST YEAR RATE BASE		
	<u>Per Company</u>	<u>Difference</u>	<u>Per Staff</u>
Morenci Electric	\$19,992,153	\$0	\$19,992,153
Morenci Water	\$3,294,872	\$0	\$3,294,872
Clifton Water	\$585,414	\$0	\$585,414
Total	\$23,872,439	\$0	\$23,872,439

OPERATING INCOME

Operating Income Summary

Q. What are the results of Staff's analysis of test year revenues, expenses and operating income for MWE?

A. Staff's analysis resulted in test year revenues, expenses, and operating income as follows:

Test Year	Morenci Electric	Morenci Water	Clifton Water
	Sch CSB-3	Sch CSB-5	Sch CSB-5
Revenues	\$73,632,080	\$607,570	\$196,004
Expenses	\$72,489,651	\$1,124,668	\$292,182
Operating Income	\$1,142,429	\$(517,098)	\$(96,178)

Operating Income Adjustment – BCOP Revenue and PPAC Revenue (Morenci Electric)

Adjustment to PPAC Revenue

Q. Explain the purpose of the break-out of the total revenue from sales of electricity into components as shown on Schedules CSB-4 and CSB-5.

A. The purpose is to show the portion of base rates revenue that is generated to recover the purchased power cost separately from the portion of base rates revenue that is generated to recover the remaining cost of service components.

Q. What amount is Morenci Electric proposing for BCOP revenue, PPCA revenue, and contract sales revenue?

A. The Company has proposed BCOP revenue of approximately \$2,327,232, PPCA revenue of a negative \$811,515, and contract sales revenue of \$68,164,830 for a total of \$69,680,547.

Q. For ratemaking purposes, is it appropriate to include monies from the Company's PPCA in operating revenues?

A. No, it is not appropriate. The PPCA revenues are set using a mechanism that is different from that used to set base rates. Further, the PPCA can change outside of a rate case based on over or under collections in the Company's fuel bank.

Q. What is Staff's recommendation concerning the PPCA revenue?

A. Staff recommends removing \$811,515 in PPCA revenue as shown on Schedules CSB-4 and CSB-5 for Morenci Electric.

Adjustment to BCOP Revenue

Q. Did Morenci Electric propose an adjustment to its BCOP rate?

A. Yes. The Company proposes to decrease its BCOP rate by \$0.02522, from \$0.07522 per kWh to \$0.05000 per kWh.

Q. Did the Company reflect its proposed decrease in the BCOP rate in test year revenue?

A. No, it did not.

Q. Why should the decrease in the BCOP rate be reflected in test year revenue?

A. The decrease in the BCOP rate should be reflected in test year revenue to reflect that, on a going forward basis, a lower amount of its proposed purchase power expense will be recovered through the BCOP rate.

Q. What is Staff's recommendation concerning the BCOP revenue?

A. Staff recommends decreasing the BCOP revenue by \$811,515¹ as shown on Schedules CSB-4 and CSB-5 for Morenci Electric.

Operating Income Adjustment – Water Testing Expense (Morenci Water and Clifton Water)

Q. What did MWE propose for water testing expense for its Morenci and Clifton water systems?

A. MWE proposed no water testing expense.

¹ \$780,282 base cost of power revenue + \$31,233 rounding/reconciling amount = \$811,515.

1 **Q. What adjustment did Staff make?**

2 A. Staff added water testing costs of \$10,339 to reflect Staff's recommended total annual
3 water testing expense for the water department as discussed in greater detail by Staff
4 witness Jian Liu. Staff allocated \$6,203 to the Morenci water system and \$4,136 to the
5 Clifton water system.

6
7 **Q. What is Staff's recommendation?**

8 A. Staff recommends increasing water testing expense by \$6,203 for Morenci Water and
9 \$4,136 for Clifton Water as shown on Schedules CSB-6 and CSB-7 for the respective
10 systems.

11
12 *Operating Income Adjustment – Property Taxes (Morenci Water and Clifton Water)*

13 **Q. What did MWE propose for property tax expense for its Morenci and Clifton water**
14 **systems?**

15 A. MWE proposed \$27,981 for Morenci Water and \$9,604 for Clifton Water.

16
17 **Q. Did Staff make any adjustment to the property tax expense?**

18 A. Yes. Staff's adjustment reflects Staff's calculation of the property tax expense using
19 Staff's recommended revenues.

20
21 **Q. What is Staff's recommendation?**

22 A. Staff recommends increasing property tax expense by \$582 for Morenci Water and
23 decreasing property tax expense by \$390 for Clifton Water as shown on Schedules CSB-6
24 and CSB-8 for the respective systems.

25

Operating Income Adjustment – Income Taxes (Morenci Water and Clifton Water)

Q. What did MWE propose for income tax expense for its Morenci and Clifton water systems?

A. MWE proposed a negative \$357,533 for Morenci Water and a negative \$65,249 for Clifton Water.

Q. Did Staff make any adjustments to test year income tax expense?

A. Yes. Staff's adjustment reflects Staff's calculation of the income tax expense based upon Staff's adjusted test year taxable income.

Q. What is Staff's recommendation?

A. Staff recommends decreasing test year income tax expense by \$32,467 for Morenci Water and \$4,788 for Clifton Water as shown on Schedules CSB-6 and CSB-9 for the respective systems.

REVENUE REQUIREMENT

Q. What rate of return did MWE request for Morenci Electric, Morenci Water, and Clifton Water?

A. MWE has requested a 5.75 percent rate of return for Morenci Electric; a negative 8.17 for Morenci Water; and a negative 10.17 percent rate of return for Clifton Water.

Q. Are the Company's proposed rates of return reasonable?

A. The proposed rates are reasonable for Morenci Electric. However, for Morenci Water and Clifton Water they are not reasonable because the Company has proposed negative rates of return.

1 **Q. What factors did Staff consider in its review of the Company's proposed rates of**
2 **return?**

3 A. Typically, Staff performs a cost of capital or cash flow analysis in the determination of a
4 reasonable rate of return. However, unlike most Arizona for-profit electric companies,
5 MWE's primary purpose is not to make a reasonable profit. MWE is ancillary to its
6 parent and primarily exists to provide electric and water service to its parent and its
7 parent's employees. Although Staff would normally recommend a level of revenue that
8 would allow a company to at least break even, MWE's parent has proposed to subsidize
9 MWE and Staff does not object. Further, MWE's parent is well able to continue to
10 subsidize the operations of MWE and many of MWE's residential customers are
11 employees of its parent. Therefore, MWE's proposed rates of return are acceptable.

12
13 **Q. Does this conclude your Direct Testimony?**

14 A. Yes, it does.

REVENUE REQUIREMENT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY ORIGINAL COST</u>	<u>[B] STAFF ORIGINAL COST</u>
1	Adjusted Rate Base	\$ 19,992,153	\$ 19,992,153
2	Adjusted Operating Income (Loss)	\$ 1,142,429	\$ 1,142,429
3	Current Rate of Return (L2 / L1)	5.71%	5.71%
4	Required Rate of Return	5.75%	5.75%
5	Required Operating Income (L4 * L1)	\$ 1,150,249	\$ 1,150,249
6	Operating Income Deficiency (L5 - L2)	\$ 7,820	\$ 7,820
7	Gross Revenue Conversion Factor	1.62900	1.62900
8	Increase (Decrease) In Gross Revenue (L7 * L6)	\$ 12,738	\$ 12,738
9	Adjusted Test Year Revenue	\$ 73,632,080	\$ 73,632,080
10	Proposed Annual Revenue (L8 + L9)	\$ 73,644,818	\$ 73,644,819
11	Required Increase/(Decrease in Revenue) (%) (L8/L9)	0.02%	0.02%

References:

Column [A]: Company Schedules A-1 & C-1

Column [B]: Staff Schedules CSB-2 & CSB-3

RATE BASE - ORIGINAL COST

LINE NO.		[A] COOPERATIVE TEST YEAR UPDATED TO 2010	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED
1	Gross Utility Plant in Service	\$ 27,396,906	\$ -	\$ 27,396,906
2	Less: Acc Depreciation	(4,054,456)	-	(4,054,456)
3	Net Plant in Service	<u>\$ 23,342,450</u>	<u>\$ -</u>	<u>\$ 23,342,450</u>
<u>LESS:</u>				
4	Consumer Deposits	\$ -	\$ -	\$ -
5	CIAC - Net	\$ (803,648)	\$ -	\$ (803,648)
6	Deferred Income Taxes	<u>\$ (2,849,913)</u>	<u>\$ -</u>	<u>\$ (2,849,913)</u>
7	Total	(3,653,561)	-	(3,653,561)
<u>ADD:</u>				
8	Cash Working Capital	\$ -	\$ -	\$ -
9	Inventories	\$ 303,264	\$ -	\$ 303,264
10	Prepayments	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
11	Total	<u>\$ 303,264</u>	<u>\$ -</u>	<u>\$ 303,264</u>
12	Total Rate Base	<u>\$ 19,992,153</u>	<u>\$ -</u>	<u>\$ 19,992,153</u>

References:

Column [A], Cooperative Schedule B-1

Column [B]:

Column [C]: Column [A] + Column [B]

OPERATING INCOME - TEST YEAR AND STAFF RECOMMENDED

Line No.	DESCRIPTION	[A] COMPANY TEST YEAR UPDATED TO 2010	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED
REVENUES:						
1	Margin Revenue (Excludes BCOP Rev & PPCA Rev)	\$ 3,461,089	\$ 0	\$ 3,461,089	\$ 12,738	\$ 3,473,827
2						
3	Base Cost of Power ("BCOP") Revenue	\$ 2,327,232	\$ (780,282)	\$ 1,546,950	\$ -	\$ 1,546,950
4	Purchased Power Cost Adjustor ("PPCA") Revenue	(811,515)	811,515	-	-	-
5	Rounding/Reconciling Amount	-	(31,233)	(31,233)	-	(31,233)
6	Subtotal	\$ 1,515,717	\$ 0	\$ 1,515,717	\$ -	\$ 1,515,717
7	Mine Contract Pwr Rev (Rev that Recovers Pwr Costs)	68,164,830	-	68,164,830	-	68,164,830
8	Total BCOP Revenue & PPCA Revenue	\$ 69,680,547	\$ 0	\$ 69,680,547	\$ -	\$ 69,680,547
9						
10	Other Revenues	\$ 490,444	\$ -	\$ 490,444	\$ -	\$ 490,444
11						
12	Total Revenues (L1 + L8 + L10)	\$ 73,632,080	\$ 1	\$ 73,632,080	\$ 12,738	\$ 73,644,819
13						
EXPENSES:						
14						
15	Purchased Power	\$ 69,680,547	\$ -	\$ 69,680,547	\$ -	\$ 69,680,547
16	Operating Salaries & Wages	366,324	-	366,324	-	366,324
17	Employee Benefits	232,217	-	232,217	-	232,217
18	Outside Services - Legal & Engineering	106,570	-	106,570	-	106,570
19	Outside Services - O & M	147,663	-	147,663	-	147,663
20	Materials & Supplies	81,608	-	81,608	-	81,608
21	General & Administrative	502,167	-	502,167	-	502,167
22	Depreciation	849,468	-	849,468	-	849,468
23	Property Taxes	150,340	-	150,340	-	150,340
24	Income Taxes	372,747	-	372,747	-	372,747
25	Total Operating Expenses	\$ 72,489,651	\$ -	\$ 72,489,651	\$ -	\$ 72,489,651
26						
27	Operating Income	\$ 1,142,429	\$ 1	\$ 1,142,429	\$ 12,738	\$ 1,155,168

References:

Column (A): Company Schedule A
Column (B): Schedule CSB-4
Column (C): Column (A) + Column (B)
Column (D): Schedule CSB-1; Testimony
Column (E): Column (C) + Column (D)

SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR

LINE NO.	REVENUES:	DESCRIPTION	PER COMPANY	[B]		[C]	[D]
				Power Revenue, PPCA Revenue, & Purchased Pwr Exp Ref. Sch CSB-5	ADJ #1		
1	Margin Revenue (Excludes BCOP Rev & PPCA Rev)		\$ 3,461,089	\$ -	\$ -	\$ -	3,461,089
2							
3	Base Cost of Power ("BCOP") Revenue		\$ 2,327,232	\$ (780,282)	\$ -	\$ -	1,546,950
4	Purchased Power Cost Adjustor ("PPCA") Revenue		(811,515)	811,515	-	-	-
5	Rounding/Reconciling Amount		-	(31,233)	-	-	(31,233)
6	Subtotal		\$ 1,515,717	0	\$ -	\$ -	1,515,717
7	Mine Contract Pwr Rev (Rev that Recovers Power Costs)		68,164,830	-	-	-	68,164,830
8	Total BCOP Revenue & PPCA Revenue		\$ 69,680,547	0	\$ -	\$ -	69,680,547
9							
10	Other Revenues		\$ 490,444	-	\$ -	\$ -	490,444
11							
12	Total Revenues (L1 + L8 + L10)		\$ 73,632,080	0	\$ -	\$ -	73,632,080
13							
14	OPERATING EXPENSES:						
15	Purchased Power		\$ 69,680,547	-	\$ -	\$ -	69,680,547
16	Operating Salaries & Wages		366,324	-	-	-	366,324
17	Employee Benefits		232,217	-	-	-	232,217
18	Outside Services - Legal & Engineering		106,570	-	-	-	106,570
19	Outside Services - O & M		147,663	-	-	-	147,663
20	Materials & Supplies		81,608	-	-	-	81,608
21	General & Administrative		502,167	-	-	-	502,167
22	Depreciation		849,468	-	-	-	849,468
23	Property Taxes		150,340	-	-	-	150,340
24	Income Taxes		372,747	-	-	-	372,747
25	Total Operating Expenses		\$ 72,489,651	-	\$ -	\$ -	72,489,651
26							
27	Operating Income		\$ 1,142,429	0	\$ -	\$ -	1,142,429
28							

**OPERATING MARGIN ADJUSTMENT NO. 1 - POWER REVENUE
& PURCHASED POWER COST ADJUSTOR REVENUE**

LINE NO.	DESCRIPTION	[A]		[B]		[C]	
		COMPANY AS FILED		STAFF ADJUSTMENTS		STAFF AS ADJUSTED	
1	<u>Revenue</u>						
2							
3	Margin Rev. (Excl BCOP Rev, PPCA Rev, Contract, & Other)	\$ 3,461,089	\$	0	\$	3,461,089	
4							
5	Base Cost of Power ("BCOP") Revenue	\$ 2,327,232	\$	(780,282)	\$	1,546,950	From Line 32
6	Purchased Power Cost Adjustor ("PPCA") Rev	(811,515)		811,515		-	
7	Reconciling/Rounding Amount	-		(31,233)		(31,233)	
8	Subtotal BCOP Revenue & PPCA Revenue	\$ 1,515,717	\$	0	\$	1,515,717	
9	anci & Safford Mine Contract Pwr Rev (Rev that Recovers Power Costs)	\$ 68,164,830	\$	(0)	\$	68,164,830	
10	Total BCOP Revenue & PPCA Revenue	\$ 69,680,547	\$	0	\$	69,680,547	
11							
12	Total Electric Metered Revenue Sales	\$ 73,141,636	\$	0	\$	73,141,636	
13							
14	Other Revenue	\$ 490,444	\$	-	\$	490,444	
15							
16	Total Revenue	\$ 73,632,080	\$	(0)	\$	73,632,080	
17							
18	<u>Expenses</u>						
19	Purchased Power	\$ 69,680,547	\$	-	\$	69,680,547	
20							
21							
22							
23		Test Year Sales		Test Year Sales			
24		(In KWhs)		(In KWhs)			
25		<u>Subject to PPA</u>		<u>Subject to PPA</u>			
26	Residential	14,693,853	-	14,693,853			Schedule E-7
27	Commercial	16,390,517	-	16,390,517			Schedule E-7
28		31,084,370	-	31,084,370			
29	Reconciling Amount	(145,367)	-	(145,367)			
30	Test Year Sales (In kWhs) subject to PPA	30,939,003	-	30,939,003			From Company Consultant
31	Multiplied by: Base Cost of Power per kWh	0.075220000	(0.0252200)	0.050000000			
32	Total Base Cost of Power	\$ 2,327,232	\$	(780,282)	\$	1,546,950	

References:

Column A: Company Schedules C-1 & E-7
Column B: Testimony, CSB
Column C: Column [A] + Column [B]

REVENUE REQUIREMENT

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COMPANY ORIGINAL COST</u>	<u>[B] STAFF ORIGINAL COST</u>
1	Adjusted Rate Base	\$ 3,294,872	\$ 3,294,872
2	Adjusted Operating Income (Loss)	\$ (477,845)	\$ (517,098)
3	Current Rate of Return (L2 / L1)	-14.50%	-15.69%
4	Required Rate of Return	-10.90%	-12.15%
5	Required Operating Income (L4 * L1)	\$ (359,141)	\$ (400,227)
6	Operating Income Deficiency (L5 - L2)	\$ 118,704	\$ 116,870
7	Gross Revenue Conversion Factor	1.6290000	1.6545626
8	Increase (Decrease) In Gross Revenue (L7 * L6)	\$ 193,369	\$ 193,369
9	Adjusted Test Year Revenue	\$ 607,570	\$ 607,570
10	Proposed Annual Revenue (L8 + L9)	\$ 800,939	\$ 800,939
11	Required Increase/(Decrease in Revenue) (%) (L8/L9)	31.83%	31.83%

References:

Column [A]: Company Schedules A-1, C-1, C-3, & D-1

Column [B]: Staff Schedules CSB-2, CSB-3, & CSB-10

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
<u>Calculation of Gross Revenue Conversion Factor:</u>					
1	Revenue	100.0000%			
2	Uncollectible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	39.5611%			
5	Subtotal (L3 - L4)	60.4389%			
6	Revenue Conversion Factor (L1 / L5)	1.654563			
<u>Calculation of Uncollectible Factor:</u>					
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 * L10)	0.0000%			
<u>Calculation of Effective Tax Rate:</u>					
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 53)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 + L16)		38.5989%		
<u>Calculation of Effective Property Tax Factor</u>					
18	Unity	100.0000%			
19	Combined Federal and State Income Tax Rate (L17)	38.5989%			
20	One Minus Combined Income Tax Rate (L18-L19)	61.4011%			
21	Property Tax Factor (CSB-8, Col B, L24)	1.5670%			
22	Effective Property Tax Factor (L20*L21)		0.9622%		
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			39.5611%	
24	Required Operating Income (Schedule CSB-1, Line 5)	\$ (400,227)			
25	Adjusted Test Year Operating Income (Loss) (Sch CSB-5, Col C, Line 34)	(517,098)			
26	Required Increase in Operating Income (L24 - L25)		\$ 116,870		
27	Income Taxes on Recommended Revenue (Col. [C], L52)	\$ (251,597)			
28	Income Taxes on Test Year Revenue (Col. [A], L52)	(325,066)			
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		73,469		
30	Recommended Revenue Requirement (Schedule CSB-1, Line 10)	\$ 800,939			
31	Uncollectible Rate (Line 10)	0.0000%			
32	Uncollectible Expense on Recommended Revenue (L30*L31)	\$ -			
33	Adjusted Test Year Uncollectible Expense	\$ -			
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32-L33)		-		
35	Property Tax with Recommended Revenue (CSB-8, Col B, L19)	\$ 31,593			
36	Property Tax on Test Year Revenue (CSB-8, Col A, L16)	28,563			
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		3,030		
38	Total Required Increase in Revenue (L26 + L29 + L34 + L37)		\$ 193,369		
<u>Calculation of Income Tax:</u>					
39	Revenue (Schedule CSB-11, Col. [C], Line 4 & Sch. CSB-1, Col. [D] Line 1	\$ 607,570	\$ 193,369	\$ 800,939	
40	Operating Expenses Excluding Income Taxes	\$ 1,449,733	\$ 3,030	\$ 1,452,763	
41	Synchronized Interest (L56)	\$ -		\$ -	
42	Arizona Taxable Income (L39 - L40 - L41)	\$ (842,163)		\$ (651,824)	
43	Arizona State Income Tax Rate	6.9680%		6.9680%	
44	Arizona Income Tax (L42 x L43)	\$ (58,682)		\$ (45,419)	
45	Federal Taxable Income (L42 - L44)	\$ (783,481)		\$ (606,405)	
46	Federal Tax on Income Bracket - Not Used	\$ -		\$ -	
47	Federal Tax on Income Bracket - Not Used	\$ -		\$ -	
48	Federal Tax on Income Bracket - Not Used	\$ -		\$ -	
49	Federal Tax on Income Bracket - Not Used	\$ -		\$ -	
50	Federal Tax on All Income (\$0 - \$10,000,000) @ 34%	\$ (266,384)		\$ (206,178)	
51	Total Federal Income Tax	\$ (266,384)		\$ (206,178)	
52	Combined Federal and State Income Tax (L44 + L51)	\$ (325,066)		\$ (251,597)	
53	Applicable Federal Income Tax Rate [Col. [C], L51 - Col. [A], L51] / [Col. [C], L45 - Col. [A], L45]			34.0000%	
<u>Calculation of Interest Synchronization:</u>					
54	Rate Base (Schedule CSB-3, Col. (C), Line 14				
55	Weighted Average Cost of Debt	0.0000%			
56	Synchronized Interest (L45 X L46)	\$ -			

RATE BASE - ORIGINAL COST

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	ADJ NO.	(C) STAFF AS ADJUSTED
1	Gross Utility Plant in Service	\$ 7,200,201	\$ -	\$ 7,200,201
2	Less: Accumulated Depreciation	(3,374,768)	-	(3,374,768)
3	Net Plant in Service	<u>\$ 3,825,433</u>	<u>\$ -</u>	<u>\$ 3,825,433</u>
<u>LESS:</u>				
4	Advances in Aid of Construction (AIAC)	\$ -	\$ -	\$ -
5	Service Line and Meter Advances	\$ -	\$ -	\$ -
6	Contributions in Aid of Construction (CIAC)	\$ -	\$ -	\$ -
7	Less: Accumulated Amortization	-	-	-
8	Net CIAC	<u>\$ -</u>	<u>-</u>	<u>\$ -</u>
9	Total Advances and Contributions	\$ -	\$ -	\$ -
10	Customer Deposits	\$ 10,449	\$ -	\$ 10,449
11	Accumulated Deferred Income Taxes	\$ 547,030	\$ -	\$ 547,030
<u>ADD:</u>				
12	Working Capital	\$ -	\$ -	\$ -
13	Inventories	\$ 26,918	\$ -	\$ 26,918
14	Total Rate Base	<u>\$ 3,294,872</u>	<u>\$ -</u>	<u>\$ 3,294,872</u>

References:

Column [A], Company Schedule B-1, Page 1
Column [B]: Schedule CSB-4
Column [C]: Column [A] + Column [B]

SUMMARY OF RATE BASE ADJUSTMENTS

		[A]	[B]	[C]	[D]
LINE NO.	PLANT IN SERVICE				
	Acct. No. Plant Description	COMPANY AS FILED		STAFF AS ADJUSTED	
1					
2	301 Organization Cost	\$ -	\$ -	\$ -	\$ -
3	302 Franchise Cost	890	-	-	890
4	303 Land and Land Rights	23,926	-	-	23,926
5	304 Structures and Improvements	281,810	-	-	281,810
6	305 Collecting and Impounding Res.	51,378	-	-	51,378
7	307 Wells and Springs	34,064	-	-	34,064
8	309 Supply Mains	-	-	-	-
9	310 Power Generation Equipment	1,293	-	-	1,293
10	311 Electric Pumping Equipment	92,122	-	-	92,122
11	320 Water Treatment Equipment	-	-	-	-
12	330 Distribution Reservoirs & Standpipe	102,018	-	-	102,018
13	331 Transmission and Distribution Mains	36,763	-	-	36,763
14	333 Services	30,106	-	-	30,106
15	334 Meters	8,244	-	-	8,244
16	335 Hydrants	59,298	-	-	59,298
17	336 Backflow Prevention Devices	-	-	-	-
18	339 Other Plant and Miscellaneous Equipment	23,472	-	-	23,472
19	340 Office Furniture and Fixtures	-	-	-	-
20	340.1 Computers and Software	-	-	-	-
21	341 Transportation Equipment	-	-	-	-
22	343 Tools and Work Equipment	-	-	-	-
23	344 Laboratory Equipment	-	-	-	-
24	345 Power Operated Equipment	-	-	-	-
25	346 Communications Equipment	5,881	-	-	5,881
26	347 Miscellaneous Equipment	-	-	-	-
27	348 Other Tangible Plant	64,621	-	-	64,621
28	Rounding	-	-	-	-
29	Total Plant in Service	\$ 815,886	\$ -	\$ -	\$ 815,886
30	Less: Accumulated Depreciation	\$ 42,738	\$ -	\$ -	\$ 42,738
31	Net Plant in Service	\$ 773,148	\$ -	\$ -	\$ 773,148
32					
33	<u>LESS:</u>				
34	Advances in Aid of Construction (AIAC)	\$ -	\$ -	\$ -	\$ -
35	Service Line and Meter Advances	\$ 410	-	-	\$ 410
36					
37	Contributions in Aid of Construction (CIAC)	\$ 26,000	-	-	\$ 26,000
38	Less: Accumulated Amortization of CIAC	\$ 63	-	-	\$ 63
39	Net CIAC	\$ 25,937	\$ -	\$ -	\$ 25,937
40					
41	Total Advances and Net Contributions	\$ 26,347	\$ -	\$ -	\$ 26,347
42					
43	Customer Deposits	\$ -	-	-	\$ -
44	Accumulated Deferred Taxes	\$ 4,144	-	-	\$ 4,144
45					
46	<u>ADD:</u>				
47	Working Capital Allowance	\$ -	-	-	\$ -
48		\$ -	-	-	\$ -
49	Total Rate Base	\$ 742,657	\$ -	\$ -	\$ 742,657

OPERATING INCOME - TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	ADJ NO.	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
<u>REVENUES:</u>							
1	Metered Water Sales	\$ 560,424	\$ -		\$ 560,424	\$ 193,369	\$ 753,793
2	Water Sales - Unmetered	-	-		-	-	-
3	Other Operating Revenues	47,146	-		47,146	-	47,146
4	Total Revenues	\$ 607,570	\$ -		\$ 607,570	\$ 193,369	\$ 800,939
<u>EXPENSES:</u>							
7	Purchased Water	\$ 60,056	\$ -		\$ 60,056	\$ -	\$ 60,056
8	Purchased Power	41,188	-		41,188	-	41,188
9	Operating Salaries and Wages	336,959	-		336,959	-	336,959
10	Employee Benefits	185,742	-		185,742	-	185,742
11	Outside Services- O & M	23,134	-		23,134	-	23,134
12	Materials & Supplies	225,710	-		225,710	-	225,710
13	General and Administrative	273,597	-		273,597	-	273,597
14	Water Testing	-	6,203	1	6,203	-	6,203
26	Depreciation Expense	268,581	-		268,581	-	268,581
28	Property Taxes	27,981	582	2	28,563	3,030	31,593
29	Income Taxes	(357,533)	32,467	3	(325,066)	73,469	(251,597)
31							
32	Total Operating Expenses	\$ 1,085,415	\$ 39,253		\$ 1,124,668	\$ 76,499	\$ 1,201,166
33							
34	Operating Income (Loss)	\$ (477,845)	\$ (39,253)		\$ (517,098)	\$ 116,870	\$ (400,227)

References:

Column (A): Company Schedule C-1, Page 2
Column (B): Schedule CSB-10
Column (C): Column (A) + Column (B)
Column (D): Schedules CSB-1 and CSB-2
Column (E): Column (C) + Column (D)

Morenci Water & Electric Company - Morenci Water
Docket Nos. E-01049A-11-0300 & W-01049A-11-0311
Test Year Ended December 31, 2010

SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1 Water Testing Expense Ref: Sch CSB-12	[C] ADJ #2 Property Taxes Ref: Sch CSB-13	[K] ADJ #10 Income Taxes Ref: Sch CSB-21	[L] STAFF ADJUSTED
REVENUES:						
1	Metered Water Revenues	\$ 560,424	\$ -	\$ -	\$ -	\$ 560,424
2	Unmetered Water Revenues	-	-	-	-	-
3	Other Water Revenues	47,146	-	-	-	47,146
4	Total Revenues	\$ 607,570	\$ -	\$ -	\$ -	\$ 607,570
OPERATING EXPENSES:						
6	Purchased Water	\$ 60,056	-	-	-	\$ 60,056
7	Purchased Power	41,188	-	-	-	41,188
8	Operating Salaries and Wages	336,959	-	-	-	336,959
9	Employee Benefits	185,742	-	-	-	185,742
10	Outside Services- O & M	23,134	-	-	-	23,134
11	Materials & Supplies	225,710	-	-	-	225,710
12	General and Administrative	273,597	-	-	-	273,597
13	Water Testing	-	6,203	-	-	6,203
14	Depreciation Expense	268,581	-	-	-	268,581
26	Property Taxes	27,981	-	582	-	28,563
28	Income Tax	(357,533)	-	-	32,467	(325,066)
29						
31	Total Operating Expenses	\$ 1,085,415	\$ 6,203	\$ 582	\$ 32,467	\$ 1,124,668
32						
33	Operating Income (Loss)	\$ (477,845)	\$ (6,203)	\$ (582)	\$ (32,467)	\$ (517,098)
34						

Morenci Water & Electric Company - Morenci Water
Docket Nos. E-01049A-11-0300 & W-01049A-11-0311
Test Year Ended December 31, 2010

Schedule CSB-7

OPERATING INCOME ADJUSTMENT NO. 1 - WATER TESTING EXPENSE

LINE NO.	DESCRIPTION	[A]		[B]		[C]	
		COMPANY AS FILED		STAFF ADJUSTMENTS		STAFF AS ADJUSTED	
1	Water Testing Expense	\$	-	\$	6,203		\$6,203

		\$10,339
	x	60%
		<hr/>
		\$6,203.40

References:

Column A: Company Schedule C-1
Column B: Testimony, CSB
Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 2 - PROPERTY TAX EXPENSE

LINE NO.	Property Tax Calculation	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	\$ 607,570	\$ 607,570
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	1,215,140	\$ 1,215,140
4	Staff Recommended Revenue, Per Schedule CSB-1	607,570	\$ 800,939
5	Subtotal (Line 4 + Line 5)	1,822,710	2,016,079
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	607,570	\$ 672,026
8	Department of Revenue Multiplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	1,215,140	\$ 1,344,053
10	Plus: 10% of CWIP -	-	-
11	Less: Net Book Value of Licensed Vehicles	-	\$ -
12	Full Cash Value (Line 9 + Line 10 - Line 11)	1,215,140	\$ 1,344,053
13	Assessment Ratio	21.0%	21.0%
14	Assessment Value (Line 12 * Line 13)	255,179	\$ 282,251
15	Property Tax Rate	11.1932%	11.1932%
			\$ -
16	Staff Test Year Adjusted Property Tax (Line 14 * Line 15)	\$ 28,563	
17	Company Proposed Property Tax	27,981	
18	Staff Test Year Adjustment (Line 16-Line 17)	\$ 582	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		\$ 31,593
20	Staff Test Year Adjusted Property Tax Expense (Line 16)		\$ 28,563
21	Increase in Property Tax Expense Due to Increase in Revenue Requirement		\$ 3,030
22	Increase to Property Tax Expense		\$ 3,030
23	Increase in Revenue Requirement		193,369
24	Increase to Property Tax per Dollar Increase in Revenue (Line 19/Line 20)		1.567048%

OPERATING INCOME ADJUSTMENT NO. 3 - TEST YEAR INCOME TAXES

LINE NO.	DESCRIPTION	(A)	(B)
<u>Calculation of Income Tax:</u>		Test Year	
1	Revenue	\$ 607,570	
2	Less: Operating Expenses - Excluding Income Taxes	\$ 1,449,733	
3	Less: Synchronized Interest (L17)	\$ -	
4	Arizona Taxable Income (L1- L2 - L3)	\$ (842,163)	
5	Arizona State Income Tax Rate	6.968%	
6	Arizona Income Tax (L4 x L5)		\$ (58,682)
7	Federal Taxable Income (L4 - L6)	\$ (783,481)	
8	Federal Tax on Income Bracket - Not Used	\$ -	
9	Federal Tax on Income Bracket - Not Used	\$ -	
10	Federal Tax on Income Bracket - Not Used	\$ -	
11	Federal Tax on Income Bracket - Not Used	\$ -	
12	Federal Tax on All Income (\$0 -\$10,000,000) @ 34%	\$ (266,384)	
13	Total Federal Income Tax		\$ (266,384)
14	Combined Federal and State Income Tax (L6 + L13)		\$ (325,066)
<u>Calculation of Interest Synchronization:</u>			
15	Rate Base (Schedule CSB-13, Col. (C), Line 16)	\$ 3,294,872	
16	Weighted Average Cost of Debt	0.00%	
17	Synchronized Interest (L16 x L17)	\$ -	
18	Income Tax - Per Staff	\$ (325,066)	
19	Income Tax - Per Company	\$ (357,533)	
20	Staff Adjustment	\$ 32,467	

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A] COMPANY ORIGINAL COST	[B] STAFF ORIGINAL COST
1	Adjusted Rate Base	\$ 585,414	\$ 585,414
2	Adjusted Operating Income (Loss)	\$ (87,643)	\$ (96,178)
3	Current Rate of Return (L2 / L1)	-14.97%	-16.43%
4	Required Rate of Return	-8.15%	-9.71%
5	Required Operating Income (L4 * L1)	\$ (47,711)	\$ (56,862)
6	Operating Income Deficiency (L5 - L2)	\$ 39,932	\$ 39,315
7	Gross Revenue Conversion Factor	1.6290000	1.6545626
8	Increase (Decrease) In Gross Revenue (L7 * L6)	\$ 65,049	\$ 65,049
9	Adjusted Test Year Revenue	\$ 196,004	\$ 196,004
10	Proposed Annual Revenue (L8 + L9)	\$ 261,053	\$ 261,053
11	Required Increase/(Decrease in Revenue) (%) (L8/L9)	33.19%	33.19%

References:

Column [A]: Company Schedules A-1, C-1, C-3, & D-1

Column [B]: Staff Schedules CSB-2, CSB-3, & CSB-10

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
<u>Calculation of Gross Revenue Conversion Factor:</u>					
1	Revenue	100.0000%			
2	Uncollectible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	39.5611%			
5	Subtotal (L3 - L4)	60.4389%			
6	Revenue Conversion Factor (L1 / L5)	1.654563			
<u>Calculation of Uncollectible Factor:</u>					
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 * L10)	0.0000%			
<u>Calculation of Effective Tax Rate:</u>					
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 53)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 + L16)		38.5989%		
<u>Calculation of Effective Property Tax Factor</u>					
18	Unity	100.0000%			
19	Combined Federal and State Income Tax Rate (L17)	38.5989%			
20	One Minus Combined Income Tax Rate (L18-L19)	61.4011%			
21	Property Tax Factor (CSB-8, Col B, L24)	1.5670%			
22	Effective Property Tax Factor (L20*L21)		0.9622%		
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			39.5611%	
24	Required Operating Income (Schedule CSB-1, Line 5)	\$ (56,862)			
25	Adjusted Test Year Operating Income (Loss) (Sch CSB-5, Col C, Line 34)	(96,178)			
26	Required Increase in Operating Income (L24 - L25)		\$ 39,315		
27	Income Taxes on Recommended Revenue (Col. [C], L52)	\$ (35,746)			
28	Income Taxes on Test Year Revenue (Col. [A], L52)	(60,461)			
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		24,715		
30	Recommended Revenue Requirement (Schedule CSB-1, Line 10)	\$ 261,053			
31	Uncollectible Rate (Line 10)	0.0000%			
32	Uncollectible Expense on Recommended Revenue (L30*L31)	\$ -			
33	Adjusted Test Year Uncollectible Expense	\$ -			
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32-L33)		-		
35	Property Tax with Recommended Revenue (CSB-8, Col B, L19)	\$ 10,234			
36	Property Tax on Test Year Revenue (CSB-8, Col A, L16)	9,214			
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		1,019		
38	Total Required Increase in Revenue (L26 + L29 + L34 + L37)		\$ 65,049		
<u>Calculation of Income Tax:</u>					
39	Revenue (Schedule CSB-11, Col. [C], Line 4 & Sch. CSB-1, Col. [D] Line 1	\$ 196,004	\$ 65,049	\$ 261,053	
40	Operating Expenses Excluding Income Taxes	\$ 352,642	\$ 1,019	\$ 353,661	
41	Synchronized Interest (L56)	\$ -		\$ -	
42	Arizona Taxable Income (L39 - L40 - L41)	\$ (156,638)		\$ (92,608)	
43	Arizona State Income Tax Rate	6.9680%		6.9680%	
44	Arizona Income Tax (L42 x L43)	\$ (10,915)		\$ (6,453)	
45	Federal Taxable Income (L42 - L44)	\$ (145,723)		\$ (86,155)	
46	Federal Tax on Income Bracket - Not Used	\$ -		\$ -	
47	Federal Tax on Income Bracket - Not Used	\$ -		\$ -	
48	Federal Tax on Income Bracket - Not Used	\$ -		\$ -	
49	Federal Tax on Income Bracket - Not Used	\$ -		\$ -	
50	Federal Tax on All Income (\$0 - \$10,000,000) @ 34%	\$ (49,546)		\$ (29,293)	
51	Total Federal Income Tax	\$ (49,546)		\$ (29,293)	
52	Combined Federal and State Income Tax (L44 + L51)	\$ (60,461)		\$ (35,746)	
53	Applicable Federal Income Tax Rate [Col. [C], L51 - Col. [A], L51] / [Col. [C], L45 - Col. [A], L45]			34.0000%	
<u>Calculation of Interest Synchronization:</u>					
54	Rate Base (Schedule CSB-3, Col. (C), Line 14				
55	Weighted Average Cost of Debt	0.0000%			
56	Synchronized Interest (L45 X L46)	\$ -			

RATE BASE - ORIGINAL COST

LINE NO.		(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	ADJ NO.	(C) STAFF AS ADJUSTED
1	Gross Utility Plant in Service	\$ 998,878	\$ -		\$ 998,878
2	Less: Accumulated Depreciation	(327,483)	-		(327,483)
3	Net Plant in Service	<u>\$ 671,395</u>	<u>\$ -</u>		<u>\$ 671,395</u>
	<u>LESS:</u>				
4	Advances in Aid of Construction (AIAC)	\$ -	\$ -		\$ -
5	Service Line and Meter Advances	\$ -	\$ -		\$ -
6	Contributions in Aid of Construction (CIAC)	\$ -	\$ -		\$ -
7	Less: Accumulated Amortization	-	-		-
8	Net CIAC	<u>\$ -</u>	<u>-</u>		<u>\$ -</u>
9	Total Advances and Contributions	\$ -	\$ -		\$ -
10	Customer Deposits	\$ 1,834	\$ -		\$ 1,834
11	Accumulated Deferred Income Taxes	\$ 96,026	\$ -		\$ 96,026
	<u>ADD:</u>				
12	Working Capital	\$ -	\$ -		\$ -
13	Inventories	\$ 11,879	\$ -		\$ 11,879
14	Total Rate Base	<u>\$ 585,414</u>	<u>\$ -</u>		<u>\$ 585,414</u>

References:

Column [A], Company Schedule B-1, Page 1

Column [B]: Schedule CSB-4

Column [C]: Column [A] + Column [B]

SUMMARY OF RATE BASE ADJUSTMENTS

		[A]	[B]	[C]	[D]
LINE NO.	PLANT IN SERVICE				
	Acct. No. Plant Description	COMPANY AS FILED		STAFF AS ADJUSTED	
1					
2	301 Organization Cost	\$ -	\$ -	\$ -	\$ -
3	302 Franchise Cost	890	-	-	890
4	303 Land and Land Rights	23,926	-	-	23,926
5	304 Structures and Improvements	281,810	-	-	281,810
6	305 Collecting and Impounding Res.	51,378	-	-	51,378
7	307 Wells and Springs	34,064	-	-	34,064
8	309 Supply Mains	-	-	-	-
9	310 Power Generation Equipment	1,293	-	-	1,293
10	311 Electric Pumping Equipment	92,122	-	-	92,122
11	320 Water Treatment Equipment	-	-	-	-
12	330 Distribution Reservoirs & Standpipe	102,018	-	-	102,018
13	331 Transmission and Distribution Mains	36,763	-	-	36,763
14	333 Services	30,106	-	-	30,106
15	334 Meters	8,244	-	-	8,244
16	335 Hydrants	59,298	-	-	59,298
17	336 Backflow Prevention Devices	-	-	-	-
18	339 Other Plant and Miscellaneous Equipment	23,472	-	-	23,472
19	340 Office Furniture and Fixtures	-	-	-	-
20	340.1 Computers and Software	-	-	-	-
21	341 Transportation Equipment	-	-	-	-
22	343 Tools and Work Equipment	-	-	-	-
23	344 Laboratory Equipment	-	-	-	-
24	345 Power Operated Equipment	-	-	-	-
25	346 Communications Equipment	5,881	-	-	5,881
26	347 Miscellaneous Equipment	-	-	-	-
27	348 Other Tangible Plant	64,621	-	-	64,621
28	Rounding	-	-	-	-
29	Total Plant in Service	\$ 815,886	\$ -	\$ -	\$ 815,886
30	Less: Accumulated Depreciation	\$ 42,738	\$ -	\$ -	\$ 42,738
31	Net Plant in Service	\$ 773,148	\$ -	\$ -	\$ 773,148
32					
33	<u>LESS:</u>				
34	Advances in Aid of Construction (AIAC)	\$ -	\$ -	\$ -	\$ -
35	Service Line and Meter Advances	\$ 410	-	-	\$ 410
36					
37	Contributions in Aid of Construction (CIAC)	\$ 26,000	-	-	\$ 26,000
38	Less: Accumulated Amortization of CIAC	\$ 63	-	-	\$ 63
39	Net CIAC	\$ 25,937	\$ -	\$ -	\$ 25,937
40					
41	Total Advances and Net Contributions	\$ 26,347	\$ -	\$ -	\$ 26,347
42					
43	Customer Deposits	\$ -	-	-	\$ -
44	Accumulated Deferred Taxes	\$ 4,144	-	-	\$ 4,144
45					
46	<u>ADD:</u>				
47	Working Capital Allowance	\$ -	-	-	\$ -
48		\$ -	-	-	\$ -
49	Total Rate Base	\$ 742,657	\$ -	\$ -	\$ 742,657

OPERATING INCOME - TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
	REVENUES:					
1	Metered Water Sales	\$ 185,954	\$ -	\$ 185,954	\$ 65,049	\$ 251,003
2	Water Sales - Unmetered	-	-	-	-	-
3	Other Operating Revenues	10,050	-	10,050	-	10,050
4	Total Revenues	\$ 196,004	\$ -	\$ 196,004	\$ 65,049	\$ 261,053
5						
6	EXPENSES:					
7	Purchased Water	\$ -	\$ -	\$ -	\$ -	\$ -
8	Purchased Power	11,010	-	11,010	-	11,010
9	Operating Salaries and Wages	120,452	-	120,452	-	120,452
10	Employee Benefits	66,424	-	66,424	-	66,424
11	Outside Services- O & M	3,697	-	3,697	-	3,697
12	Materials & Supplies	20,541	-	20,541	-	20,541
13	General and Administrative	70,021	-	70,021	-	70,021
14	Water Testing	-	4,136	4,136	-	4,136
26	Depreciation Expense	47,147	-	47,147	-	47,147
28	Property Taxes	9,604	(390)	9,214	1,019	10,234
29	Income Taxes	(65,249)	4,788	(60,461)	24,715	(35,746)
31						
32	Total Operating Expenses	\$ 283,647	\$ 8,535	\$ 292,182	\$ 25,734	\$ 317,916
33						
34	Operating Income (Loss)	\$ (87,643)	\$ (8,535)	\$ (96,178)	\$ 39,315	\$ (56,862)

References:

Column (A): Company Schedule C-1, Page 2
Column (B): Schedule CSB-10
Column (C): Column (A) + Column (B)
Column (D): Schedules CSB-1 and CSB-2
Column (E): Column (C) + Column (D)

SUMMARY OF OPERATING INCOME ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1 Water Testing Expense Ref: Sch CSB-7	[C] ADJ #2 Property Taxes Ref: Sch CSB-8	[K] ADJ #10 Income Taxes Ref: Sch CSB-9	[L] STAFF ADJUSTED
REVENUES:						
1	Metered Water Revenues	\$ 185,954	\$ -	\$ -	\$ -	\$ 185,954
2	Unmetered Water Revenues	-	-	-	-	-
3	Other Water Revenues	10,050	-	-	-	10,050
4	Total Revenues	\$ 196,004	\$ -	\$ -	\$ -	\$ 196,004
OPERATING EXPENSES:						
6	Purchased Water	\$ -	-	-	-	-
7	Purchased Power	11,010	-	-	-	11,010
8	Operating Salaries and Wages	120,452	-	-	-	120,452
9	Employee Benefits	66,424	-	-	-	66,424
10	Outside Services- O & M	3,697	-	-	-	3,697
11	Materials & Supplies	20,541	-	-	-	20,541
12	General and Administrative	70,021	-	-	-	70,021
13	Water Testing	-	4,136	-	-	4,136
14	Depreciation Expense	47,147	-	-	-	47,147
26	Property Taxes	9,604	-	(390)	-	9,214
28	Income Tax	(65,249)	-	-	4,788	(60,461)
29						
31						
32	Total Operating Expenses	\$ 283,647	\$ 4,136	\$ (390)	\$ 4,788	\$ 292,182
33						
34	Operating Income (Loss)	\$ (87,643)	\$ (4,136)	\$ 390	\$ (4,788)	\$ (96,178)

Morenci Water & Electric Company - Clifton Water
Docket Nos. E-01049A-11-0300 & W-01049A-11-0311
Test Year Ended December 31, 2010

Schedule CSB-7

OPERATING INCOME ADJUSTMENT NO. 1 - WATER TESTING EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Water Testing Expense	\$ -	\$ 4,136	\$4,136

	\$10,339
x	40%
	<hr/>
	\$4,135.60

References:

Column A: Company Schedule C-1
Column B: Testimony, CSB
Column C: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 2 - PROPERTY TAX EXPENSE

LINE NO.	Property Tax Calculation	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	\$ 196,004	\$ 196,004
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	392,008	\$ 392,008
4	Staff Recommended Revenue, Per Schedule CSB-1	196,004	\$ 261,053
5	Subtotal (Line 4 + Line 5)	588,012	653,061
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	196,004	\$ 217,687
8	Department of Revenue Multiplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	392,008	\$ 435,374
10	Plus: 10% of CWIP -	-	-
11	Less: Net Book Value of Licensed Vehicles	-	\$ -
12	Full Cash Value (Line 9 + Line 10 - Line 11)	392,008	\$ 435,374
13	Assessment Ratio	21.0%	21.0%
14	Assessment Value (Line 12 * Line 13)	82,322	\$ 91,429
15	Property Tax Rate	11.1932%	11.1932%
16	Staff Test Year Adjusted Property Tax (Line 14 * Line 15)	\$ 9,214	\$ -
17	Company Proposed Property Tax	9,604	
18	Staff Test Year Adjustment (Line 16-Line 17)	\$ (390)	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		\$ 10,234
20	Staff Test Year Adjusted Property Tax Expense (Line 16)		\$ 9,214
21	Increase in Property Tax Expense Due to Increase in Revenue Requirement		\$ 1,019
22	Increase to Property Tax Expense		\$ 1,019
23	Increase in Revenue Requirement		65,049
24	Increase to Property Tax per Dollar Increase in Revenue (Line 19/Line 20)		1.567048%

OPERATING INCOME ADJUSTMENT NO. 3 - TEST YEAR INCOME TAXES

LINE NO.	DESCRIPTION	(A)	(B)
<u>Calculation of Income Tax:</u>		Test Year	
1	Revenue	\$ 196,004	
2	Less: Operating Expenses - Excluding Income Taxes	\$ 352,642	
3	Less: Synchronized Interest (L17)	\$ -	
4	Arizona Taxable Income (L1- L2 - L3)	\$ (156,638)	
5	Arizona State Income Tax Rate	6.968%	
6	Arizona Income Tax (L4 x L5)		\$ (10,915)
7	Federal Taxable Income (L4 - L6)	\$ (145,723)	
8	Federal Tax on Income Bracket - Not Used	\$ -	
9	Federal Tax on Income Bracket - Not Used	\$ -	
10	Federal Tax on Income Bracket - Not Used	\$ -	
11	Federal Tax on Income Bracket - Not Used	\$ -	
12	Federal Tax on All Income (\$0 -\$10,000,000) @ 34%	\$ (49,546)	
13	Total Federal Income Tax		\$ (49,546)
14	Combined Federal and State Income Tax (L6 + L13)		\$ (60,461)
<u>Calculation of Interest Synchronization:</u>			
15	Rate Base (Schedule CSB-13, Col. (C), Line 16)	\$ 585,414	
16	Weighted Average Cost of Debt	0.00%	
17	Synchronized Interest (L16 x L17)	\$ -	
18	Income Tax - Per Staff	\$ (60,461)	
19	Income Tax - Per Company	\$ (65,249)	
20	Staff Adjustment	\$ 4,788	

BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE

Chairman

BOB STUMP

Commissioner

SANDRA D. KENNEDY

Commissioner

PAUL NEWMAN

Commissioner

BRENDA BURNS

Commissioner

IN THE MATTER OF THE APPLICATION OF)
MORENCI WATER & ELECTRIC COMPANY)
FOR APPROVAL OF A RATE INCREASE.)

DOCKET NO. E-01049A-11-0300

IN THE MATTER OF THE APPLICATION OF)
MORENCI WATER & ELECTRIC COMPANY)
FOR THE ESTABLISHMENT OF JUST AND)
REASONABLE RATES FOR ITS WATER)
DEPARTMENT.)

DOCKET NO. W-01049A-11-0311

DIRECT

TESTIMONY

OF

MARGARET (TOBY) LITTLE

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

JULY 27, 2012

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
PURPOSE OF TESTIMONY.....	2
ENGINEERING EVALUATION	3
Morenci's Service Area	3
Electric System Description	4
Electric System Characteristics	5
Annual System Losses	7
Quality of Service	8
Distribution System Inspection.....	9
Projected System Growth	10
CONCLUSIONS AND RECOMMENDATIONS	10

EXECUTIVE SUMMARY
MORENCI WATER AND ELECTRIC COMPANY
DOCKET NO. E-01049A-11-0300 AND W-01049A-11-0311

Margaret (Toby) Little's testimony makes recommendations regarding the Arizona Corporation Commission ("Commission" or "ACC") Utilities Division Staff's ("Staff") engineering evaluation of Morenci Water and Electric Company's ("MWE," "Morenci," or "Company") Application for the Establishment of Just and Reasonable Rates for its Electric and Water Departments, in the State of Arizona ("Application") filed with the Commission in Docket Nos. E-01049A-11-0300 and W-01049A-11-0311. In conjunction with Staff's engineering evaluation, Staff gives an account of its inspection of MWE's distribution system, of MWE's current operations and maintenance, and of MWE's future plans for its electric system. Staff has the following conclusions and recommendations:

1. It is Staff's conclusion that Morenci Water and Electric Company:
 - a. is operating and maintaining its electrical system properly;
 - b. is carrying out system improvements, upgrades and new additions to meet the current and projected load of the Company in an efficient and reliable manner, and these improvements, system upgrades and new construction are reasonable and appropriate;
 - c. has an acceptable level of system losses, consistent with the industry guidelines; and
 - d. has a satisfactory record of service interruptions in the period of time for which such data is available, reflecting satisfactory quality of service.

INTRODUCTION

Q. Please state your name and business address.

A. My name is Margaret (Toby) Little. My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. By whom and in what capacity are you employed?

A. I am employed by the Arizona Corporation Commission ("Commission") as an Electric Utilities Engineer.

Q. Please describe your educational background.

A. I received both my Bachelors and Masters Degrees in Electrical Engineering from New Mexico State University. I graduated with my Bachelors Degree in July 1972, and received my Masters Degree in January 1979. My Masters Program at New Mexico State University was in Electric Utility Management. I received my Professional Engineering ("P.E.") License in the state of California in 1980.

Q. Please describe your pertinent work experience.

A. I worked at the Arizona Corporation Commission from September 2010 to February 2011 as a Utilities Consultant, and since February 2011 I have been employed at the Commission as an Electric Utilities Engineer. During this time I have performed engineering analyses for financing cases, helped coordinate the Sixth Biennial Transmission Assessment, reviewed utilities' load curtailment plans and summer preparedness plans, prepared engineer reports for rate cases and Certificate of Environmental Compability applications, and conducted various other engineering analyses. From 1983 through 1987 I was the Supervisor of System Planning for Anchorage Municipal Light and Power, the second largest utility in Alaska. There I had

1 overall responsibility for distribution, transmission and resource planning for the utility
2 and supervised six electrical engineers. From 1979 through 1982 and 1987 through 1988 I
3 worked for R.W. Beck and Associates, a nationally recognized engineering firm. There I
4 performed many types of engineering analyses involving resource and transmission
5 planning and worked on the engineer's reports for the financing of a major generation
6 facility in northern California. Prior to that, I worked in the System Planning Sections of
7 San Diego Gas and Electric Company and Hawaiian Electric Company, where I had
8 responsibility for short and long range distribution planning.
9

10 **Q. As part of your assigned duties at the Commission, did you perform Staff's**
11 **engineering analysis of the Morenci Water and Electric Company's ("MWE,"**
12 **"Morenci," or "Company") rate application that is the subject of this proceeding?**

13 **A. Yes, I did.**
14

15 **Q. Is your testimony herein based on that analysis?**

16 **A. Yes, it is.**
17

18 **PURPOSE OF TESTIMONY**

19 **Q. What is the purpose of your prefiled testimony?**

20 **A. The purpose of my testimony is to discuss Staff's engineering evaluation of the MWE's**
21 **electric system operations and planning, and to present the results of this review. MWE's**
22 **current electric rates and charges were approved by Commission Decision No. 54712**
23 **dated October 10, 1985.**
24

ENGINEERING EVALUATION

Q. Did you perform an engineering evaluation of MWE's electrical system?

A. Yes, I did. In response to the Morenci's rate filing, I inspected the Company's distribution system facilities on January 24, 2012, and discussed with MWE's officials certain elements of its rate filing. I also relied on the responses to Staff's data requests (both written and verbal) received from the Company's officials.

Q. Will you please enumerate the highlights of your inspection of Morenci's electric system?

A. Yes. The following provides an account of my inspection of MWE's electrical system and my analysis of the data provided both in the initial filing and in response to data requests.

On Tuesday, January 24, 2012, I met with Mr. Roy Archer, President and Operations Manager of MWE, and Mr. Ruel Rogers, Superintendent of MWE. We toured the system, beginning at Tucson Electric Company's ("TEP") Greenlee Substation where MWE takes power, and continuing through both Clifton and Morenci where I inspected and photographed various substations and distribution system elements.

Morenci's Service Area

The Company is classified as a class A utility with two departments that provide electric and water service mostly in Greenlee County, Arizona. MWE also provides electric service to mining operations at Morenci (in Greenlee County, Arizona) and Safford (in Graham County, Arizona). These mining operations are owned and operated by Freeport McMoRan Copper & Gold, Inc., which also owns MWE. Over 98 percent of the Company's load is due to mining operations.

1 *Electric System Description*

2
3 MWE is a public service corporation principally engaged in the provision of both electric
4 and water service in Arizona. The Company has no generating capacity of its own and
5 purchases power from its affiliate Freeport McMoRan Energy Services, Inc. ("Freeport
6 ES") and from Tucson Electric Power Company ("TEP"). Freeport ES obtains its power
7 from either the wholesale market or from the Luna Energy Facility ("Luna") in Deming,
8 New Mexico. Freeport ES provides power to MWE at market-based rates as an Exempt
9 Wholesale Generator as defined under Federal Energy Regulatory Commission ("FERC")
10 regulations. Power is purchased from TEP as needed on both a real-time and day-ahead
11 basis.

12
13 TEP provides Transmission Services for MWE for both the power provided by Freeport
14 ES and by TEP. In addition, MWE secures transmission (both firm and non-firm) from
15 Southwest Transmission Cooperative, Inc. ("SWTC") to deliver power to the Freeport
16 mining operations at Safford.

17
18 MWE owns mostly distribution facilities, including distribution lines, feeder ties,
19 transformers, switchgear and the 46/13.8 kiloVolt ("kV") Tent City Substation. Two 13.8
20 kV distribution feeders emanate from the Tent City Substation, one to serve customers in
21 the Morenci town site and one to serve customers in the Town of Clifton.

22
23 In addition, the Company owns one 345 kV transmission line, the Copper Verde 345/230
24 kV substation, the PD Morenci 230/46 kV substation and the Frisco 230/46 kV substation.
25 The Morenci mining operation is served from the PD Morenci and Frisco Substations, and

1 the 345 kV transmission line is used to provide additional capacity to meet the increased
2 mining operations at that location.

3
4 Purchased power is delivered to the Company at TEP's 345 kV Greenlee Sub. Power is
5 then carried by the Company's 345 kV transmission line 13 miles to the 345/230 kV
6 Copper Verde Substation. From the Copper Verde Substation, 230 kV circuits feed Frisco
7 Substation, PD Morenci Substation, and Tent Substation. The distribution system is fed
8 from Tent City Substation. The distribution system voltages are 4,600 Volts and 13.8 kV.
9 The Company has an active program in place to upgrade all of the distribution to 13.8 kV
10 over the next few years, (approximately 50 percent of the system has been upgraded).

11
12 *Electric System Characteristics*

13
14 As of December 31, 2010, MWE provided electric power distribution service to 2,336
15 metered customers. Of these, 2,068 were Residential Customers, 266 were Commercial
16 Customers, and two were Industrial Customers. Because the Company's load profile is so
17 different from that of a typical distribution utility, it is worth noting that over 98 percent of
18 MWE's load is due to the two Industrial Customers which are the mining operations at
19 Safford and Morenci.

20
21 Morenci's total system peak load increased from 206.7 Megawatts ("MW") in 2004 to 246
22 MW in 2008, which is an average annual increase of 9.8 percent over this four year time
23 period. The non-mine system load increased over the same time period from 4,134
24 kiloWatts ("kW") to 5,080 kW, an average increase of 5.7 percent per year. However, in
25 2009 and 2010, both total system and non-mine system peak load decreased. In 2011 the
26 load increased to 182.6 MW, and is expected to continue to recover. Because both the

1 peak system load and the non-mine load are heavily dependent on the mines, it is
2 reasonable for them to fluctuate depending on economic conditions for copper mining. In
3 2009 the price of copper decreased and mining output also decreased; since the end of
4 2010, the output of the mine has increased, reflecting some recovery in the price of
5 copper.

6
7 The Morenci electric system is unique in that its load factor is high compared to the
8 typical rural distribution utility. Because the mines require a relatively consistent amount
9 of power around the clock, and 98 percent of the Company's load is due to the mines, the
10 total system load factor average for 2005 to 2010 is 83 percent. This enables MWE to
11 purchase power at a lower cost than it would pay if the system load factor was more
12 typical of a distribution utility, which is around 50 percent.

13
14 The average number of services, including all classes of customers, increased from 1,940
15 in 2001 to 2,336 in 2010, indicating an average increase of 2.27 percent per year.
16 However, the Company¹ has stated that the number of customers has fluctuated over the
17 years depending on employment at the mines, and there has been no real growth in
18 customers served since 1985. All of the residences in Morenci belong to Freeport
19 McMoRan and are leased to mine employees, and the town of Clifton has shown little
20 growth over the past ten years.

21
22 MWE has 55.6 miles of energized lines, including 39.3 miles of overhead distribution
23 lines², 5.5 miles of underground distribution cable³ and 10.8 miles of 345 kV transmission

¹ See Direct Testimony of Roy Archer, pg 11

² 13.8 kV and 4.6 kV

³ 13.8 kV and 4.6 kV

1 lines. The Company's service territory is located within Western Area Power
2 Administration's ("WAPA") Load Control Area⁴.

3
4 *Annual System Losses*

5
6 Morenci's annual historic system losses are listed below.

7

8	2005	0.18%
9	2006	0.19%
10	2007	0.23%
11	2008	0.87% ⁵
12	2009	0.85%
13	2010	0.7%

14

15 These losses average 0.5 percent per year for the most recent six year period, (2005-2010),
16 and are well below the reasonable limits in the guidelines provided by the American
17 Public Power Association's Distribution System Loss Evaluation Manual applicable to
18 electrical systems such as that of the Company. Typical distribution system loss values
19 indicated in the said Manual range between 6 percent for urban systems to 10 percent for
20 rural systems. Morenci's losses are significantly lower than average due to the
21 characteristics of the load it serves. The majority of the load is served at 345 kV, (the
22 mine load), and retail load similar to that served by more traditional utilities is small
23 compared to the mine load.

24

⁴ An electrical system bounded by interconnection metering and telemetry, capable of controlling generation to balance supply and demand, maintain interchange schedules with other control areas, and contribute to the frequency regulation of the interconnection.

⁵ Morenci has stated that what appears to be a relative increase in losses for the years 2008 -- 2010 is because of a change in the way the losses are measured.

Quality of Service

The outages that occur in a utility's system stem from a variety of causes and are an indicator of the quality of service to customers. Some of these causes are storm –related; others are relative to switching surges, equipment failure and planned outages. Outage information is examined through the use of several different indices, the most common of which is Average Customer Outage Hours per Customer per Year. Morenci has not historically recorded outage data in a way that makes it possible to calculate customer outage hours per year. The Company has begun a new program to record its data so that this index can be calculated in the future. However, Morenci did provide what data was available for all distribution system outages in 2010 and 2011. The available historical data⁶ relative to Morenci's distribution system outages is shown in the following table.

<u>Year</u>	<u>Outage Data</u>
2010	12 outages: 6 outages less than 5 minutes, 1 20 minute outage, 5 1-2 hour outages
2011	4 outages: all less than 15 minutes

It should be noted that the compact nature of Morenci's distribution system helps keep the number of outages down. The information indicated in the above table shows that the Company's service quality in terms of reliability seems reasonable. In the future, it will be possible to compare MWE's customer outage hours per customer per year index to industry standards.

⁶ Morenci has stated that they do not have outage data available prior to January, 2010.

1 *Distribution System Inspection*

2
3 During my inspection of Morenci's distribution system, it was noted that system
4 improvements and system upgrades have been made in many areas on the system.
5

6 Every year, the Company selects an area of the older 4,600 Volt distribution system to
7 rebuild and upgrade to 13.8 kV. The old system is difficult to access and maintain;
8 MWE's goal is to phase out the old system over the next few years. Most (approximately
9 80 percent) new poles are steel, and the new construction is clean and professional
10 looking. It is easier to access and maintain, and more reliable.
11

12 In general, the MWE electric system appears to be well planned and maintained. No
13 deficiencies or obvious problems were observed during the inspection tour. It was also
14 noted that the substations are properly maintained, with safety-related equipment installed
15 and 'Danger' signs installed on the fence around the substations. No oil leakage at the
16 substation transformers was detected.
17

18 Morenci has an ongoing plan to test wooden poles and replace those that have reached the
19 end of their useful lives. According to MWE staff, approximately 20-30 wooden poles are
20 replaced every year, most with steel poles.
21

22 MWE has a program for tree trimming to keep distribution lines free of vegetation; no
23 areas needing trimming were observed on the inspection trip.
24

Projected System Growth

MWE provided the following projections for system load growth over the next ten year period. Because the peak system load is so heavily dependent on the requirements of the mine, the Company uses mine forecasts as a basis for their system load forecasts. Little or no growth is expected for the residential and small commercial load. Because the largest part of Morenci's electric system load is service to the mines, it is not unreasonable for the Company to use information provided by the mines as a basis for its load forecast.

<u>Year</u>	<u>Projected System Peak Demand (MW)</u>	<u>Annual Projected Percent Growth</u>
2012	218	19.4%
2013	211	(3.2%)
2014	223	5.7%
2015	225	0.9%
2016	225	--
2017	225	--
2018	225	--
2019	225	--
2020	225	--

CONCLUSIONS AND RECOMMENDATIONS

Q. Based upon your testimony, what are Staff's conclusions and recommendations regarding the engineering evaluation of Morenci Water and Electric's electrical system?

A. Staff's conclusions and recommendations are as follows:

1. It is Staff's conclusion that Morenci:
 - a. is operating and maintaining its electrical system properly;

- 1 b. is carrying out system improvements, upgrades and new additions to meet
2 the current and projected load of the Company in an efficient and reliable
3 manner, and that these improvements, system upgrades and new
4 construction are reasonable and appropriate;
5 c. has an acceptable level of system losses; and
6 d. has a satisfactory record of service interruptions in the period of time for
7 which such data is available, reflecting satisfactory quality of service.
8

9 **Q. Does that conclude your testimony?**

10 A. Yes, it does.

BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE

Chairman

PAUL NEWMAN

Commissioner

SANDRA D. KENNEDY

Commissioner

BOB STUMP

Commissioner

BRENDA BURNS

Commissioner

IN THE MATTER OF THE APPLICATION OF)
MORENCI WATER & ELECTRIC COMPANY)
FOR APPROVAL OF A RATE INCREASE.)

DOCKET NO. E-01049A-11-0300

IN THE MATTER OF THE APPLICATION OF)
MORENCI WATER & ELECTRIC COMPANY)
FOR THE ESTABLISHMENT OF JUST AND)
REASONABLE RATES FOR ITS WATER)
DEPARTMENT.)

DOCKET NO. W-01049A-11-0311

DIRECT

TESTIMONY

OF

JIAN W. LIU

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

JULY 27, 2012

TABLE OF CONTENTS

	<u>PAGE</u>
INTRODUCTION	1
PURPOSE OF TESTIMONY	2
ENGINEERING REPORTS	3
RECOMMENDATIONS AND CONCLUSIONS	3
<i>Conclusions</i>	3
<i>Recommendations</i>	4

EXHIBIT

Engineering Report for Morenci Water and Electric Company	JWL
Proposed Cross-Connection or Backflow and Curtailment Tariffs	A

INTRODUCTION

Q. Please state your name and business address.

A. My name is Jian W. Liu. My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. By whom and in what position are you employed?

A. I am employed by the Arizona Corporation Commission ("Commission" or "ACC") as a Utilities Engineer - Water/Wastewater in the Utilities Division.

Q. How long have you been employed by the Commission?

A. I have been employed by the Commission since October 2005.

Q. What are your responsibilities as a Utilities Engineer - Water/Wastewater?

A. My main responsibilities are to inspect, investigate and evaluate water and wastewater systems. This includes obtaining data, preparing reconstruction cost new and/or original cost studies, investigative reports, interpreting rules and regulations, and to suggest corrective action and provide technical recommendations on water and wastewater system deficiencies. I also provide written and oral testimony in rate cases and other cases before the Commission.

Q. How many companies have you analyzed for the Utilities Division?

A. I have analyzed more than 40 companies fulfilling these various responsibilities for Utilities Division Staff ("Staff").

Q. Have you previously testified before this Commission?

A. Yes, I have testified on numerous occasions before this Commission.

1 **Q. What is your educational background?**

2 A. I am a Ph.D. Candidate in Geotechnical Engineering from Arizona State University
3 ("ASU"). I have a Master of Science Degree in Natural Science from ASU and a Master
4 of Science Degree in Civil Engineering from Institute of Rock & Soil Mechanics
5 ("IRSM"), Academy of Sciences, China.

6
7 **Q. Briefly describe your pertinent work experience.**

8 A. From 1982 to 2000, I was employed by IRSM, SCS Engineers, and URS Corporation as a
9 Civil and Environmental Engineer. In 2000, I joined the Arizona Department of
10 Environmental Quality ("ADEQ"). My responsibilities with ADEQ included review and
11 approval of water distribution systems, sewer distribution systems, and on-site wastewater
12 treatment facilities. I remained with ADEQ until transferring to the Commission in
13 October 2005.

14
15 **Q. Please state your professional membership, registrations, and licenses.**

16 A. I am a licensed professional civil engineer in the State of Arizona.

17
18 **PURPOSE OF TESTIMONY**

19 **Q. What was your assignment in this rate proceeding?**

20 A. My assignment was to provide Staff's engineering evaluation of the subject rate
21 proceeding. I reviewed the Company's application and responses to data requests, and I
22 inspected the water systems. This testimony and its attachments present Staff's
23 engineering evaluation. The findings of my engineering evaluation are contained in the
24 Engineering Report that I have prepared for this proceeding. The report is included as
25 Exhibit JWL in this pre-filed testimony.

ENGINEERING REPORTS

Q. Please describe the information contained in your Engineering Reports.

A. The Report is divided into three general sections: 1) *Executive Summary*; 2) *Engineering Report Discussion*, and 3) *Engineering Report Exhibits*. The *Discussions* section for the Water System can be further divided into ten subsections: A) Location of Company; B) Description of the Water System; C) Maricopa County Environmental Services Department ("MCESD") Compliance or ADEQ Compliance; D) ACC Compliance; E) Arizona Department Of Water Resources ("ADWR") compliance; F) Water Testing Expenses, G) Water Usage, H) Growth; I) Depreciation Rates; J) Other Issues.

RECOMMENDATIONS AND CONCLUSIONS

Q. What are Staff's conclusions and recommendations regarding the Company's operations?

A. Staff's conclusions and recommendations regarding the Company's operations are listed below.

CONCLUSIONS:

1. ADEQ regulates the Clifton Water System under ADEQ Public Water System Identification ("PWSID") No. 06-002, and Morenci Water System under ADEQ PWSID No. 06-003. ADEQ has determined that the systems are currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, and Chapter 4.
2. Morenci Water and Electric Company ("MWE" or "the Company") is not located in any ADWR Active Management Area ("AMA") and is not subject to any AMA reporting and conservation requirements. ADWR reported that the Company is

1 currently in compliance with departmental requirements governing water providers
2 and/or community water systems.

3
4 3. Staff concludes that MWE has adequate production capacity and storage capacity
5 to serve its existing customer base and reasonable growth.

6
7 4. A check of the Commission's Utilities Division Compliance Section database
8 indicated no delinquent compliance items for MWE's water systems.

9
10 **RECOMMENDATIONS**

11
12 1. Staff recommends that the Company use Staff's depreciation rates by individual
13 National Association of Regulatory Utility Commissioners category as delineated
14 in Table B of Exhibit JWL.

15
16 2. Staff recommends the annual water testing expense of \$10,339 submitted by the
17 Company be used for purposes of this application.

18
19 3. Staff recommends that the meter and service line installation charges listed under
20 "Staff's Recommendation" in Table C be approved along with an installation
21 charge of "At Cost" for meter sizes of over 6-inch.

22
23 4. The Company does not have any approved Best Management Practices ("BMP")
24 tariffs. Staff recommends that MWE be required to file with Docket Control, as a
25 compliance item in this docket, within 90 days of the effective date of this
26 Decision, at least five BMPs in the form of tariffs that substantially conform to the

1 templates created by Staff for the Commission's review and consideration. The
2 templates created by Staff are available on the Commission's website at
3 <http://www.azcc.gov/Divisions/Utilities/forms.asp>. The Company may request
4 cost recovery of actual costs associated with the BMPs implemented in its next
5 general rate application.
6

7 5. Staff recommends that MWE be required to provide separate water use data sheets
8 for Morenci water system and Clifton water system in future Commission Annual
9 Reports, beginning with the 2013 Annual Report filed in 2014. Staff further
10 recommends that the Company monitor the gallons pumped and sold to determine
11 the non-account water for each of its water systems. If the reported annual water
12 loss is greater than 10 percent, the Company shall prepare a report containing a
13 detailed analysis and plan to reduce water loss to 10 percent or less. If the
14 Company believes it is not cost effective to reduce the water loss to less than 10
15 percent, it should submit a detailed cost benefit analysis to support its opinion.
16

17 6. Staff recommends approval of the Cross-Connection or Backflow and Curtailment
18 Tariffs filed by MWE on July 17, 2012, attached as Exhibit A.
19

20 **Q. Does this conclude your Direct Testimony?**

21 **A.** Yes, it does.

EXHIBIT JW

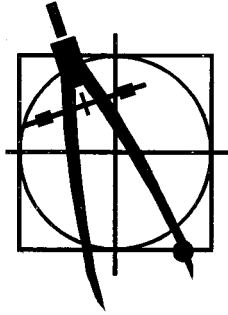
ENGINEERING REPORT FOR

MORENCI WATER AND ELECTRIC COMPANY

DOCKET NO. W-01049A-11-0311 (RATES)

JIAN W LIU

JULY 5, 2012



**Engineering Report for:
Morenci Water and Electric Company
for a Rate Increase
Docket No. W-01049A-11-0311 (Rates)**

**By: Jian W Liu
Utilities Engineer**

JULY 5, 2012

EXECUTIVE SUMMARY

CONCLUSIONS:

1. Arizona Department of Environmental Quality ("ADEQ") regulates the Clifton Water System under ADEQ Public Water System Identification ("PWSID") No. 06-002, and Morenci Water System under ADEQ PWSID No. 06-003. ADEQ has determined that the systems are currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, and Chapter 4.
2. Morenci Water and Electric Company ("MWE" or "the Company") is not located in any Arizona Department of Water Resources ("ADWR") Active Management Area ("AMA") and is not subject to any AMA reporting and conservation requirements. ADWR reported that the Company is currently in compliance with departmental requirements governing water providers and/or community water systems.
3. Arizona Corporation Commission Utilities Division Staff ("Staff") concludes that MWE has adequate production capacity and storage capacity to serve its existing customer base and reasonable growth.
4. A check of the Commission's Utilities Division Compliance Section database indicated there are no delinquent compliance items for MWE's water systems.

RECOMMENDATIONS

1. Staff recommends that the Company use Staff's depreciation rates by individual National Association of Regulatory Utility Commissioners category as delineated in Table B of Exhibit JW1.
2. Staff recommends the annual water testing expense of \$10,339 submitted by the Company be used for purposes of this application.

3. Staff recommends that the meter and service line installation charges listed under “Staff’s Recommendation” in Table C be approved along with an installation charge of “At Cost” for meter sizes of over 6-inch.
4. The Company does not have any approved Best Management Practices (“BMP”) tariffs. Staff recommends that MWE be required to file with Docket Control, as a compliance item in this docket, within 90 days of the effective date of this Decision, at least five BMPs in the form of tariffs that substantially conform to the templates created by Staff for the Commission’s review and consideration. The templates created by Staff are available on the Commission’s website at <http://www.azcc.gov/Divisions/Utilities/forms.asp>. The Company may request cost recovery of actual costs associated with the BMPs implemented in its next general rate application.
5. Staff recommends that MWE be required to provide separate water use data sheets for Morenci water system and Clifton water system in future Commission Annual Reports, beginning with the 2013 Annual Report filed in 2014. Staff further recommends that the Company monitor the gallons pumped and sold to determine the non-account water for each its water system. If the reported annual water loss is greater than 10 percent, the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10 percent or less. If the Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion.
6. Staff recommends approval of the Cross-Connection or Backflow and Curtailment Tariffs filed by MWE on July 17, 2012, attached as Exhibit A.

TABLE OF CONTENTS

	<u>Page</u>
A. INTRODUCTION AND LOCATION OF COMPANY	1
B. DESCRIPTION OF THE WATER SYSTEM.....	1
C. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (“ADEQ”) COMPLIANCE.....	3
D. ACC COMPLIANCE	3
E. ADWR COMPLIANCE.....	4
F. WATER TESTING EXPENSES.....	4
G. WATER USE.....	4
<i>Water Sold</i>	4
<i>Non-account Water</i>	4
H. GROWTH.....	5
I. DEPRECIATION RATES	5
J. CROSS-CONNECTION OR BACKFLOW PREVENTION AND CURTAILMENT TARIFFS.....	7
K. METER AND SERVICE LINE INSTALLATION CHARGES.....	7

FIGURES

County Map	FIGURE 1
Certificated Area.....	FIGURE 2

A. INTRODUCTION AND LOCATION OF COMPANY

Morenci Water and Electric Company ("MWE" or "the Company") has submitted an application with the Arizona Corporation Commission ("ACC" or "Commission") for approval of a rate increase in Docket No. W-01049A-11-0311. MWE's current water rates and charges were approved by Commission Decision No. 54712 dated October 10, 1985. This report constitutes Staff's engineering evaluation of the subject rate proceeding. MWE has two separate water systems - one for its Morenci town site, which has approximately 1,280 customers, and one for customers living in the Town of Clifton, which has approximately 635 customers. MWE also provides water service to mining operations at Morenci (in Greenlee County, Arizona). The mining operations are owned and operated by Freeport McMoRan Copper & Gold, Inc. ("Freeport"), which also owns MWE. Figure 1 shows the location of MWE within Greenlee County and Figure 2 shows the certificated area.

B. DESCRIPTION OF THE WATER SYSTEM

The plant facilities were visited on June 20, 2012, by Jian Liu, Commission Utilities Division Staff ("Staff") Utilities Engineer, in the accompaniment of Ruel A. Rogers Jr., Superintendent of the Company.

The Morenci water system consists of a 1.333 million gallon water treatment plant ("WTP"), four (4) storage tanks and one booster pump and a distribution system. MWE actually receives water from Freeport for the Morenci water system; Freeport pumps raw surface water from its Eagle Creek Pump Station which is used to serve its mining operation as well as a source of water for MWE. After treating the water, MWE delivers the water to its customers through its distribution system largely using gravity flow to feed three 500,000-gallon storage tanks located throughout the town site; the booster pump is used to pump water to the fourth storage tank which has a capacity of 7,500 gallons.

The Clifton water system consists of two wells (each well is equipped with a 60 horsepower pump) and a distribution system. Each pump has a capacity of 450 gallons per minute ("GPM"). Most of the water is pumped to the South Clifton storage tank (capacity of 750,000 gallons). This storage tank gravity feeds back into the rest of the distribution system. The Town of Clifton water system also has two additional storage tanks. A 10,000 gallon tank serves Shannon Hill and a 5,000 gallon tank serves Smelter Hill. Total storage capacity equals 765,000 gallons for the Town of Clifton water system.

There is one interconnection between the Clifton and Morenci water systems. It is an eight-inch gravity fed main that is approximately one quarter mile in length. This interconnection allows the Morenci water system to feed into the Clifton water system (which is downhill from the Morenci system).

Staff concludes that MWE has adequate production capacity and storage capacity to serve the existing customer base.

(Tabular Description of Water System)

Clifton water system

Well Data

ADWR ID No.	Pump HP	Pump GPM	Casing Depth(ft)	Casing Size(in)	Meter Size(in)	Year Drilled
55-624-247	60	450	148	20	8	1972
55-624-246	60	450	148	20	8	1972

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
750,000	1			5	3
10,000	1			50	3
5,000	1			1000	2
Total 765,000					

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
	10 miles			
		5/8x3/4	493	
		3/4		
		1	19	
		1.5	1	
		2	12	
		3	3	
		4		
		Total	528	

Morenci water system

Storage Tanks		Pressure Tanks		Booster Pumps	
Capacity (gallons)	Quantity	Capacity (gallons)	Quantity	Capacity (HP)	Quantity
500,000	3			5	1
350,000	1			50	2
7,500	1				
Total 1,857,500					

Mains		Customer Meters		Fire Hydrants
Size (inches)	Length (feet)	Size (inches)	Quantity	Quantity
	25 miles			
		5/8x3/4	1,547	
		3/4	3	
		1	12	
		1.5	1	
		2	40	
		3	8	
		4	2	
		6	1	
		Total	1,614	

C. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (“ADEQ”) COMPLIANCE

ADEQ regulates the Clifton Water System under ADEQ Public Water System Identification (“PWSID”) No. 06-002, and the Morenci Water System is regulated under ADEQ PWSID No. 06-003. ADEQ has determined that both systems are in compliance with its requirements and are currently delivering water that meets the water quality standards required by Arizona Administrative Code, Title 18, and Chapter 4. (ADEQ reports dated September 7, 2011).

D. ACC COMPLIANCE

A check with of the Commission’s Utilities Division Compliance Section database indicated no delinquent compliance items for MWE’s water systems. (Compliance Section Email dated June 21, 2012)

E. ADWR COMPLIANCE

MWE is not located in any ADWR Active Management Area (“AMA”) and is not subject to any AMA reporting and conservation requirements. ADWR reported that the Company is currently in compliance with departmental requirements governing water providers and/or community water systems. (ADWR Email dated June 15, 2012)

F. WATER TESTING EXPENSES

The Company submitted Invoices for a total water testing expense of \$10,339 during the test year (including \$4,285 for laboratory, and \$6,053.77 for ADEQ MAP Invoices). Staff reviewed the reported amount and supporting documentation provided by the Company. Staff recommends the annual water testing expense of \$10,339 submitted by the Company be used for purposes of this application.

G. WATER USE

Water Sold

For residential water use, the Company reported average 255 gal/day per service connection for both the Clifton and Morenci water systems.

Non-account Water

Non-account water should be 10 percent or less and never more than 15 percent. It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing.

The Company has been reporting water use data for the combined Morenci and Clifton water systems in its Annual Reports. Staff requested and received disaggregated water use data however, Staff was unable to reconcile discrepancies in this data. Therefore, Staff recommends that MWE be required to provide separate water use data sheets for Morenci water system and Clifton water system in future Commission Annual Reports, beginning with the 2013 Annual Report filed in 2014. Staff further recommends that the Company monitor the gallons pumped and sold to determine the non-account water for each of its water systems. If the reported annual water loss is greater than 10 percent, the Company shall prepare a report containing a detailed analysis and plan to reduce water loss to 10 percent, or less. If the Company believes it is not cost effective to reduce the water loss to less than 10 percent, it should submit a detailed cost benefit analysis to support its opinion. In no case shall the Company allow water loss to be greater than 15 percent.

The Company does not have any approved Best Management Practices (“BMPs”) tariffs. Staff recommends that MWE be required to file with Docket Control, as a compliance item in

this docket, within 90 days of the effective date of this Decision, at least five BMPs in the form of tariffs that substantially conform to the templates created by Staff for the Commission's review and consideration. The templates created by Staff are available on the Commission's website at <http://www.azcc.gov/Divisions/Utilities/forms.asp>. The Company may request cost recovery of actual costs associated with the BMPs implemented in its next general rate application.

H. GROWTH

In 1985 MWE provided water service to approximately 2,600 customers. In 2010, the Company had an average of approximately 1,915 customers. MWE serves fewer customers today than it did in 1985. The Company expects this no growth trend to continue for the foreseeable future.

I. DEPRECIATION RATES

Staff recommends that MWE use Staff's depreciation rates by individual National Association of Regulatory Utility Commissioners category as delineated in Table B of Exhibit JWL.

Table B. Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	----	----

NOTES:

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.
2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

J. CROSS-CONNECTION OR BACKFLOW PREVENTION AND CURTAILMENT TARIFFS

On July 17, 2012, MWE filed its proposed Cross-Connection or Backflow and Curtailment tariffs. These tariffs are based on the templates developed by Staff. Staff recommends approval of the Cross-Connection or Backflow and Curtailment tariffs filed by MWE on July 17, 2012, attached as Exhibit A.

K. METER AND SERVICE LINE INSTALLATION CHARGES

The Company requested Commission approval to change its service line and meter installation charges. These charges are refundable advances and the Company's proposed charges are below Staff's typical range for these charges. Since the Company may at times install meters on existing service lines, it would be appropriate for some customers to only be charged for the meter installation. Staff recommends that the charges listed under "Staff's Recommendation" in Table C be adopted along with the adoption of an installation charge of "At Cost" for meter sizes of over 6-inch.

Table C. Service Line and Meter Installation Charges

Meter Size	Company Proposed and Staff recommended Service Line Charges ⁽²⁾	Company Proposed and Staff recommended Meter Charges ⁽¹⁾	Company Proposed and Staff recommended Total Charges
5/8 x3/4-inch	\$370	\$130	\$500
3/4-inch	\$370	\$205	\$575
1-inch	\$420	\$240	\$660
1-1/2-inch	\$450	\$450	\$900
2-inch	\$580	\$945	\$1,525
3-inch	\$745	\$1,420	\$2,165
4-inch	\$1,090	\$2,270	\$3,360
6-inch	\$1,610	\$4,425	\$6,035
Over 6-inch	At Cost	At Cost	At Cost

(1). Meter charge includes meter box or vault.

(2). Current Service Line Charges - free for first 100 feet for residential customer.

MORENCI WATER AND ELECTRIC COMPANY
DOCKET NO. W-01049A-11-0311

GREENLEE COUNTY

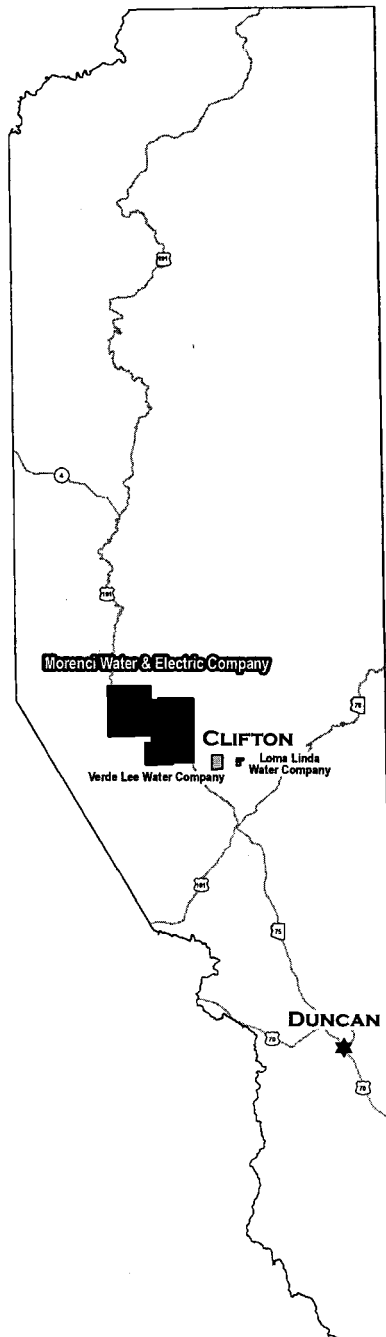


Figure 1. County Map

MORENCI WATER AND ELECTRIC COMPANY
DOCKET NO. W-01049A-11-0311

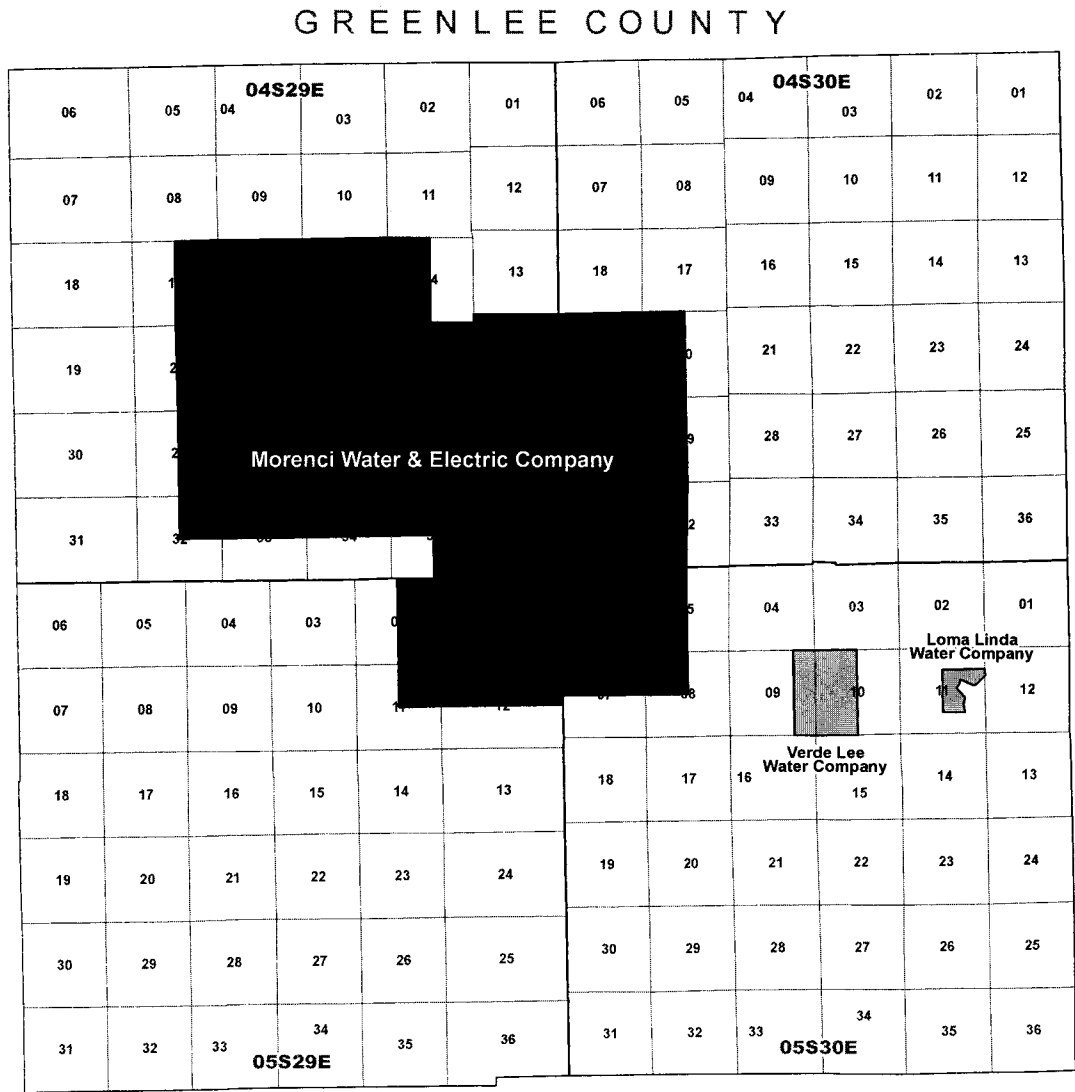


Figure 2. Certificated Area

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
 BOB STUMP
 SANDRA D. KENNEDY
 PAUL NEWMAN
 BRENDA BURNS

2012 JUL 17 P 1:39

AZ CORP COMMISSION
DOCKET CONTROL

RECEIVED

JUL 17 2012

AZ CORP COMM
Director - Utilities

IN THE MATTER OF THE APPLICATION OF
 MORENCI WATER & ELECTRIC COMPANY
 FOR APPROVAL OF A RATE INCREASE.

DOCKET NO. E-01049A-11-0300

IN THE MATTER OF THE APPLICATION OF
 MORENCI WATER & ELECTRIC COMPANY
 FOR THE ESTABLISHMENT OF JUST AND
 REASONABLE RATES FOR ITS ELECTRIC
 AND WATER DEPARTMENTS.

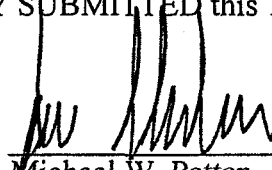
DOCKET NO. W-01049A-11-0311

NOTICE OF FILING PROPOSED
 CROSS-CONNECTION AND
 CURTAILMENT TARIFFS

Morenci Water & Electric Company ("MWE") files the proposed Cross-Connection and
 Curtailment Tariffs for the Arizona Corporation Commission's consideration. MWE is filing
 two separate curtailment tariffs, one for its Clifton system, and one for its Morenci system.

RESPECTFULLY SUBMITTED this 17th day of July, 2012.

By


 Michael W. Patten
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 Phoenix, Arizona 85004

Attorneys for Morenci Water & Electric Company

1 Original and 13 copies of the foregoing
filed this 17th day of July, 2012, with:

2 Docket Control
3 Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

4
5 Copy of the foregoing hand-delivered
this 17th day of July, 2012 to:

6 Lyn A. Farmer, Esq.
7 Chief Administrative Law Judge
Hearing Division
8 Arizona Corporation Commission
1200 West Washington Street
9 Phoenix, Arizona 85007

10 Janice M. Alward, Esq.
11 Chief Counsel, Legal Division
Arizona Corporation Commission
12 1200 West Washington Street
Phoenix, Arizona 85007

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14 Steve Olea
Director, Utilities Division
15 Arizona Corporation Commission
1200 West Washington Street
16 Phoenix, Arizona 85007

17
18
19 By Albion Amador

CROSS-CONNECTION OR BACKFLOW TARIFF

CROSS-CONNECTION OR BACKFLOW TARIFF

PURPOSE:

The purpose of this tariff is to protect The Morenci Water and Electric Company ("Company") water from the possibility of contamination caused by the backflow of contaminants that may be present on the customer's premises by requiring the installation and periodic testing of backflow prevention assemblies pursuant to the provisions of the Arizona Administrative Code ("A.A.C.") R14-2-405.B.6 and A.A.C. R18-4-215.

REQUIREMENTS:

In compliance with the Rules of the Arizona Corporation Commission ("Commission") and the Arizona Department of Environmental Quality ("ADEQ"), specifically A.A.C. R14-2-405.B.6 and A.A.C. R18-4-215 relating to backflow prevention:

1. The Company may require a customer to pay for and to have installed a backflow-prevention assembly if A.A.C. R18-4-215.B or C applies.
2. A backflow-prevention assembly required to be installed by the customer under Paragraph 1 of this tariff shall comply with the requirements set forth in A.A.C. R18-4-215.D and E.
3. Subject to the provisions of A.A.C. R14-2-407 and 410, and in accordance with Paragraphs 1 and 7 of this tariff, the Company may terminate service or may deny service to a customer who fails to install a backflow-prevention assembly as required by this tariff
4. The Company shall give any existing customer who is required to install a backflow-prevention assembly written notice of said requirement. If A.A.C. R14-2-410.B.1.a. is not applicable, the customer shall be given thirty (30) days from the time such written notice is received in which to comply with this notice. If the customer can show good cause as to why he cannot install the backflow-prevention assembly within thirty (30) days, the Company or Commission Staff may suspend this requirement for a reasonable period of time.

****FOR OFFICIAL USE ONLY****

Effective Date: _____

5. Testing shall be in conformance with the requirements of A.A.C. R18-4-215.F. The Company may require the customer to pay to have the backflow-prevention assembly tested as long as the Company does not require an unreasonable number of tests.
6. The customer shall provide the Company with records of installation and testing. For each backflow-prevention assembly, these records shall include:
 - a. assembly identification number and description;
 - b. location
 - c. date(s) of test(s);
 - d. description of repairs and recommendations for repairs made by tester; and
 - e. the tester's name and certificate number.
7. In the event the backflow-prevention assembly does not function properly or fails any test, and an obvious hazard as contemplated under A.A.C. R14-2-410.B.1.a. exists, the Company may terminate service immediately and without notice. The backflow-prevention assembly shall be repaired or replaced by the customer and retested.
8. In the event the backflow-prevention assembly does not function properly or fails any test, or in the event that a customer fails to comply with the testing requirement, and A.A.C. R14-2-410.1.a. is not applicable, the backflow-prevention assembly shall be repaired or replaced within fourteen (14) days of the initial discovery of the deficiency in the assembly or its function. Failure to remedy the deficiency or dysfunction of the assembly, or failure to retest, shall be grounds for termination of water service in accordance with A.A.C. R14-2-410.

****FOR OFFICIAL USE ONLY****

Effective Date: _____

“Curtailment Tariff”

CLIFTON System

TARIFF SCHEDULE

Utility: The Morenci Water and Electric Company Tariff Sheet No.: 1 of 4
Docket No.: E-01049A-11-0300 et. al. Decision No.: _____
Phone No.: 928-865-2229 Effective: _____

CURTAILMENT PLAN FOR: The Morenci Water and Electric Company
(Template 102109)

ADEQ Public Water System No: 06002

The Morenci Water and Electric Company ("Company"), is authorized to curtail water service to all customers within its certificated area under the terms and conditions listed in this tariff.

This curtailment plan shall become part of the Arizona Department of Environmental Quality Emergency Operations Plan for the Company.

The Company shall notify its customers of this new tariff as part of its next regularly scheduled billing after the effective date of the tariff or no later than sixty (60) days after the effective date of the tariff.

The Company shall provide a copy of the curtailment tariff to any customer, upon request.

Stage 1 Exists When:

Company is able to maintain water storage in the system at 100 percent of capacity and there are no known problems with its well production or water storage in the system.

Restrictions: Under Stage 1, the Company is deemed to be operating normally and no curtailment is necessary.

Notice Requirements: Under Stage 1, no notice is necessary.

Stage 2 Exists When:

- a. Company's water storage or well production has been less than 80 percent of capacity for at least 48 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

Restrictions: Under Stage 2, the Company may request the customers to voluntarily employ water conservation measures to reduce water consumption by approximately 50 percent. Outside watering should be limited to essential water, dividing outside watering on some uniform basis (such as even and odd days) and eliminating outside watering on weekends and holidays.

Revised October 21, 2009

TARIFF SCHEDULE

Utility: The Morenci Water and Electric Company Tariff Sheet No.: 2 of 4
Docket No.: E-01049A-11-0300 et. al. Decision No.: _____
Phone No.: 928-865-2229 Effective: _____

Notice Requirements: Under Stage 2, the Company is required to notify customers by delivering written notice door to door at each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such notice shall notify the customers of the general nature of the problem and the need to conserve water.

Stage 3 Exists When:

- a. Company's total water storage or well production has been less than 50 percent of capacity for at least 24 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

Restrictions: Under Stage 3, the Company shall request the customers to voluntarily employ water conservation measures to reduce daily consumption by approximately 50 percent. All outside watering should be eliminated, except livestock, and indoor water conservation techniques should be employed whenever possible. Standpipe service shall be suspended.

Notice Requirements:

1. Company is required to notify customers by delivering written notice to each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such Notice shall notify the customers of the general nature of the problem and the need to conserve water.
2. Beginning with Stage 3, the Company shall post at least 4 signs showing the curtailment stage. Signs shall be posted at noticeable locations, like at the well sites and at the entrance to major subdivisions served by the Company.
3. The Company shall notify the Consumer Services Section of the Utilities Division of the Corporation Commission at least 12 hours prior to entering Stage 3.

Once Stage 3 has been reached, the Company must begin to augment the supply of water by either hauling or through an emergency interconnect with an approved water supply in an attempt to maintain the curtailment at a level no higher than Stage 3 until a permanent solution has been implemented.

TARIFF SCHEDULE

Utility: The Morenci Water and Electric Company Tariff Sheet No.: 3 of 4
Docket No.: E-01049A-11-0300 et. al. Decision No.: _____
Phone No.: 928-865-2229 Effective: _____

Stage 4 Exists When:

- a. Company's total water storage or well production has been less than 25 percent of capacity for at least 12 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

Restrictions: Under Stage 4, Company shall inform the customers of a **mandatory** restriction to employ water conservation measures to reduce daily consumption. Failure to comply will result in customer disconnection. The following uses of water shall be prohibited:

- Irrigation of outdoor lawns, trees, shrubs, or any plant life is prohibited
- Washing of any vehicle is prohibited
- The use of water for dust control or any outdoor cleaning uses is prohibited
- The use of drip or misting systems of any kind is prohibited
- The filling of any swimming pool, spas, fountains or ornamental pools is prohibited
- The use of construction water is prohibited
- Restaurant patrons shall be served water only upon request
- Any other water intensive activity is prohibited

The Company's operation of its standpipe service is prohibited. The addition of new service lines and meter installations is prohibited.

Notice Requirements:

1. Company is required to notify customers by delivering written notice to each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such notice shall notify the customers of the general nature of the problem and the need to conserve water.
2. Company shall post at least 4 signs showing curtailment stage. Signs shall be posted at noticeable locations, like at the well sites and at the entrance to major subdivisions served by the Company.
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TARIFF SCHEDULE

Utility: The Morenci Water and Electric Company Tariff Sheet No.: 4 of 4
Docket No.: E-01049A-11-0300 et. al. Decision No.: _____
Phone No.: 928-865-2229 Effective: _____

Once Stage 4 has been reached, the Company must augment the supply of water by hauling or through an emergency interconnect from an approved supply or must otherwise provide emergency drinking water for its customers until a permanent solution has been implemented.

Customers who fail to comply with the above restrictions will be given a written notice to end all outdoor use. Failure to comply with two (2) working days of receipt of the notice will result in temporary loss of service until an agreement can be made to end unauthorized use of outdoor water. To restore service, the customer shall be required to pay all authorized reconnection fees. If a customer believes he/she has been disconnected in error, the customer may contact the Commission's Consumer Services Section at 1-800-222-7000 to initiate an investigation.

“Curtailment Tariff”

MORENCI System

TARIFF SCHEDULE

Utility: The Morenci Water and Electric Company Tariff Sheet No.: 1 of 4
Docket No.: E-01049A-11-0300 et. al. Decision No.: _____
Phone No.: 928-865-2229 Effective: _____

CURTAILMENT PLAN FOR: The Morenci Water and Electric Company
(Template 102109)

ADEQ Public Water System No: 06003

The Morenci Water and Electric Company ("Company"), is authorized to curtail water service to all customers within its certificated area under the terms and conditions listed in this tariff.

This curtailment plan shall become part of the Arizona Department of Environmental Quality Emergency Operations Plan for the Company.

The Company shall notify its customers of this new tariff as part of its next regularly scheduled billing after the effective date of the tariff or no later than sixty (60) days after the effective date of the tariff.

The Company shall provide a copy of the curtailment tariff to any customer, upon request.

Stage 1 Exists When:

Company is able to maintain water storage in the system at 100 percent of capacity and there are no known problems with its well production or water storage in the system.

Restrictions: Under Stage 1, the Company is deemed to be operating normally and no curtailment is necessary.

Notice Requirements: Under Stage 1, no notice is necessary.

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- a. Company's water storage or well production has been less than 80 percent of capacity for at least 48 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

Restrictions: Under Stage 2, the Company may request the customers to voluntarily employ water conservation measures to reduce water consumption by approximately 50 percent. Outside watering should be limited to essential water, dividing outside watering on some uniform basis (such as even and odd days) and eliminating outside watering on weekends and holidays.

Revised October 21, 2009

TARIFF SCHEDULE

Utility: The Morenci Water and Electric Company Tariff Sheet No.: 2 of 4
Docket No.: E-01049A-11-0300 et. al. Decision No.: _____
Phone No.: 928-865-2229 Effective: _____

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Stage 3 Exists When:

- a. Company's total water storage or well production has been less than 50 percent of capacity for at least 24 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

Restrictions: Under Stage 3, the Company shall request the customers to voluntarily employ water conservation measures to reduce daily consumption by approximately 50 percent. All outside watering should be eliminated, except livestock, and indoor water conservation techniques should be employed whenever possible. Standpipe service shall be suspended.

Notice Requirements:

1. Company is required to notify customers by delivering written notice to each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such Notice shall notify the customers of the general nature of the problem and the need to conserve water.
2. Beginning with Stage 3, the Company shall post at least 5 signs showing the curtailment stage. Signs shall be posted at noticeable locations, like at the well sites and at the entrance to major subdivisions served by the Company.
3. The Company shall notify the Consumer Services Section of the Utilities Division of the Corporation Commission at least 12 hours prior to entering Stage 3.

Once Stage 3 has been reached, the Company must begin to augment the supply of water by either hauling or through an emergency interconnect with an approved water supply in an attempt to maintain the curtailment at a level no higher than Stage 3 until a permanent solution has been implemented.

TARIFF SCHEDULE

Utility: The Morenci Water and Electric Company Tariff Sheet No.: 3 of 4
Docket No.: E-01049A-11-0300 et. al. Decision No.: _____
Phone No.: 928-865-2229 Effective: _____

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- Washing of any vehicle is prohibited
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- The use of drip or misting systems of any kind is prohibited
- The filling of any swimming pool, spas, fountains or ornamental pools is prohibited
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- Any other water intensive activity is prohibited

The Company's operation of its standpipe service is prohibited. The addition of new service lines and meter installations is prohibited.

Notice Requirements:

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TARIFF SCHEDULE

Utility: The Morenci Water and Electric Company Tariff Sheet No.: 4 of 4
Docket No.: E-01049A-11-0300 et. al. Decision No.: _____
Phone No.: 928-865-2229 Effective: _____

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Customers who fail to comply with the above restrictions will be given a written notice to end all outdoor use. Failure to comply with two (2) working days of receipt of the notice will result in temporary loss of service until an agreement can be made to end unauthorized use of outdoor water. To restore service, the customer shall be required to pay all authorized reconnection fees. If a customer believes he/she has been disconnected in error, the customer may contact the Commission's Consumer Services Section at 1-800-222-7000 to initiate an investigation.

BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE

Chairman

BOB STUMP

Commissioner

SANDRA D. KENNEDY

Commissioner

PAUL NEWMAN

Commissioner

BRENDA BURNS

Commissioner

IN THE MATTER OF THE APPLICATION OF)
MORENCI WATER & ELECTRIC COMPANY)
FOR APPROVAL OF A RATE INCREASE.)

DOCKET NO. E-01049A-11-0300

IN THE MATTER OF THE APPLICATION OF)
MORENCI WATER & ELECTRIC COMPANY)
FOR THE ESTABLISHMENT OF JUST AND)
REASONABLE RATES FOR ITS WATER)
DEPARTMENT. _____)

DOCKET NO. W-01049A-11-0311

DIRECT

TESTIMONY

OF

JULIE MCNEELY-KIRWAN

PUBLIC UTILITIES ANALYST IV

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

JULY 27, 2012

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
SCOPE OF TESTIMONY.....	2
BASE COST OF PURCHASED POWER	2
ENERGY EFFICIENCY ADJUSTOR MECHANISM	3
RENEWABLE ENERGY ADJUSTOR MECHANISM.....	4

EXECUTIVE SUMMARY
MORENCI WATER & ELECTRIC COMPANY
DOCKET NOS. E-01049A-11-0300 AND W-01049A-11-0311

Staff agrees that the base cost of purchased power should be set at \$0.0500 per kWh, based on information and documentation from Morenci Water and Electric Company ("Morenci"). Staff also recommends that an Energy Efficiency adjustor mechanism and a Renewable Energy Standard Tariff adjustor mechanism be established for Morenci.

INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is Julie McNeely-Kirwan. I am a Public Utilities Analyst IV employed by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Briefly describe your responsibilities as a Public Utilities Analyst IV.

A. My duties as a Public Utilities Analyst IV include reviewing and analyzing applications filed with the Commission, and preparing memoranda and proposed orders for Open Meetings. In addition, my duties have included preparing written testimony in multiple rate cases, and testifying during the related hearings. I have also assisted in the management of rate cases and have performed evaluations of energy efficiency implementation plans.

Q. Please describe your educational background and professional experience.

A. In 1979, I graduated Magna Cum Laude from Arizona State University, receiving a Bachelor of Arts degree in History. In 1987, I received a Master's Degree in Political Science from the University of Wisconsin, Madison. I have been employed by the Commission since September of 2006. Since that time, I have attended a number of seminars and classes on general regulatory issues, including demand-side management and the gas and electric industries.

SCOPE OF TESTIMONY

Q. What is the scope of your testimony?

A. My Direct Testimony will address the base cost of purchased power, the establishment of an Energy Efficiency ("EE") adjustor mechanism and a Renewable Energy Standard Tariff ("REST") adjustor mechanism.

BASE COST OF PURCHASED POWER

Q. What is Morenci's current base cost of purchased power?

A. Currently, Morenci has a base cost of power of \$0.07522 per kilowatt-hour ("kWh"). Morenci's base cost of power was set in Decision No. 54714 (October 10, 1985).

Q. Is Morenci proposing to change its base cost of purchased power?

A. Yes. Morenci is proposing to change its base cost of purchased power to \$0.05000 per kWh.

Q. What is Staff's recommendation regarding Morenci's base cost of purchased power?

A. Staff recommends a base cost of purchased power for Morenci of \$0.0500 per kWh, as proposed by Morenci. Staff believes that it is reasonable to set the base cost of purchased power at \$0.0500 per kWh, based on review of information and documentation supplied by Morenci.

Q. To the extent that the actual cost of purchased power differs from the recommended base cost, will Morenci be able to recover any under-collected fuel and purchased power costs, or to return any over-collections to its customers?

A. Yes. Any difference between the base cost of purchased power included in base rates and its actual purchased power costs can be recovered through Morenci's PPFAC.

ENERGY EFFICIENCY ADJUSTOR MECHANISM

Q. Does Morenci currently have Commission-approved EE programs?

A. Yes. In Decision No. 73090 (April 5, 2012) the Commission approved a modified version of Morenci's proposed 2011-2012 Energy Efficiency Implementation Plan ("EE Plan"). The EE Plan was approved for the 2012-2013 calendar years, and included three programs: (i) the Appliance Recycling Program; (ii) the Compact Fluorescent Lamp Program; and (iii) Low-Income Weatherization Program.

Q. Did Decision No. 73090 approve an EE surcharge tariff for Morenci's customers?

A. Yes. Decision No. 73090 approved an Energy Efficiency Surcharge Schedule. The tariff includes a per-kWh EE surcharge of \$0.000245 per kWh for all Morenci residential and non-mining non-residential customers. The tariff also includes a monthly charge of \$650 for customers with demand in excess of 3 MW per month.

Q. Does Staff recommend that an EE adjustor mechanism be established for Morenci?

A. Yes. Staff recommends that an EE adjustor mechanism be established for Morenci in the current rate case.

Q. What is the purpose of establishing an EE adjustor mechanism for Morenci?

A. The purpose of an EE adjustor mechanism is to recover the prudently incurred costs of Morenci's EE programs on a timely basis.

Q. Please discuss your recommendation for an EE adjustor mechanism.

A. Morenci currently has an Energy Efficiency Surcharge Schedule tariff. Staff recommends that the tariff become an adjustment mechanism. The initial adjustor rates should be the same as the rates on the tariff approved in Decision No. 73090. Subsequent changes to the

1 EE adjustor rates would be set in connection with the Energy Efficiency Implementation
2 Plans filed by Morenci and approved by the Commission, or as otherwise ordered by the
3 Commission.

4
5 Staff also recommends that an EE bank balance should be established. Any over-
6 collections or under-collections for EE costs should be tracked in the EE bank balance and
7 reported in each Implementation Plan filed by Morenci.

8
9 **RENEWABLE ENERGY ADJUSTOR MECHANISM**

10 **Q. Does Morenci have an approved REST Implementation Plan?**

11 A. Yes. In Decision No. 72893, dated February 17, 2012, the Commission approved the
12 2012 portion of Morenci's 2012-2013 REST Implementation Plan.

13
14 **Q. Please discuss your recommendation for a renewable energy adjustor mechanism.**

15 A. Morenci currently has a Renewable Energy Standard Surcharge ("RESS") tariff. Staff
16 recommends that the tariff become an adjustor mechanism. The adjustor rates and caps
17 should be the same as those on the RESS tariff, most recently approved in Decision No.
18 72893. Subsequent changes to the RESS adjustor rates and caps would be set in
19 connection with the annual REST Implementation Plan filed by Morenci and approved by
20 the Commission, or as otherwise ordered by the Commission.

21
22 **Q. Does this conclude your Direct Testimony?**

23 A. Yes, it does.